VOLUME LI NUMBER SIX

THE NATIONAL GEOGRAPHIC MAGAZINE

JUNE, 1927

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TO carry out the purposes for which it was founded thirty-nine years ago, the National Geographic Society publishes this Magazine. All receipts are invested in the Magazine itself or expended directly to promote geographic knowledge.

ARTICLES and photographs are desired. For material which the Magazine can use, generous remuneration is made. Contributions should be accompanied by an addressed return envelope and postage.

IMMEDIATELY after the terrific eruption of the world's largest crater, Mt. Katmai, in Alaska, a National Geographic Society expedition was sent to make observations of this remarkable phenomenon. Four expeditions have followed and the extraordinary scientific data resulting given to the world. In this vicinity an eighth wonder of the world was discovered and explored—"The Valley of Ten Thousand Smokes," a vast area of steaming, spouting fissures. As a result of The Society's discoveries this area has been created a National Monument by proclamation of the President of the United States.

AT an expense of over $50,000 The Society sent a notable series of expeditions into Peru to investigate the traces of the Inca race. Their discoveries form a large share of our knowledge of a civilization waning when Pizarro first set foot in Peru.

THE Society also had the honor of subscribing a substantial sum to the expedition of Admiral Peary, who discovered the North Pole.

NOT long ago The Society granted $25,000, and in addition $75,000 was given by individual members to the Government when the congressional appropriation for the purpose was insufficient, and the finest of the giant sequoia trees of California were thereby saved for the American people.

THE Society is conducting extensive explorations and excavations in northwestern New Mexico, which was one of the most densely populated areas in North America before Columbus came, a region where prehistoric peoples lived in vast communal dwellings and whose customs, ceremonies, and name have been engulfed in an oblivion.

TO further the important study of solar radiation in relation to long-range weather forecasting, The Society has appropriated $60,000 to enable the Smithsonian Institution to establish a station for four years on Mt. Brukkaros, in Southwest Africa.

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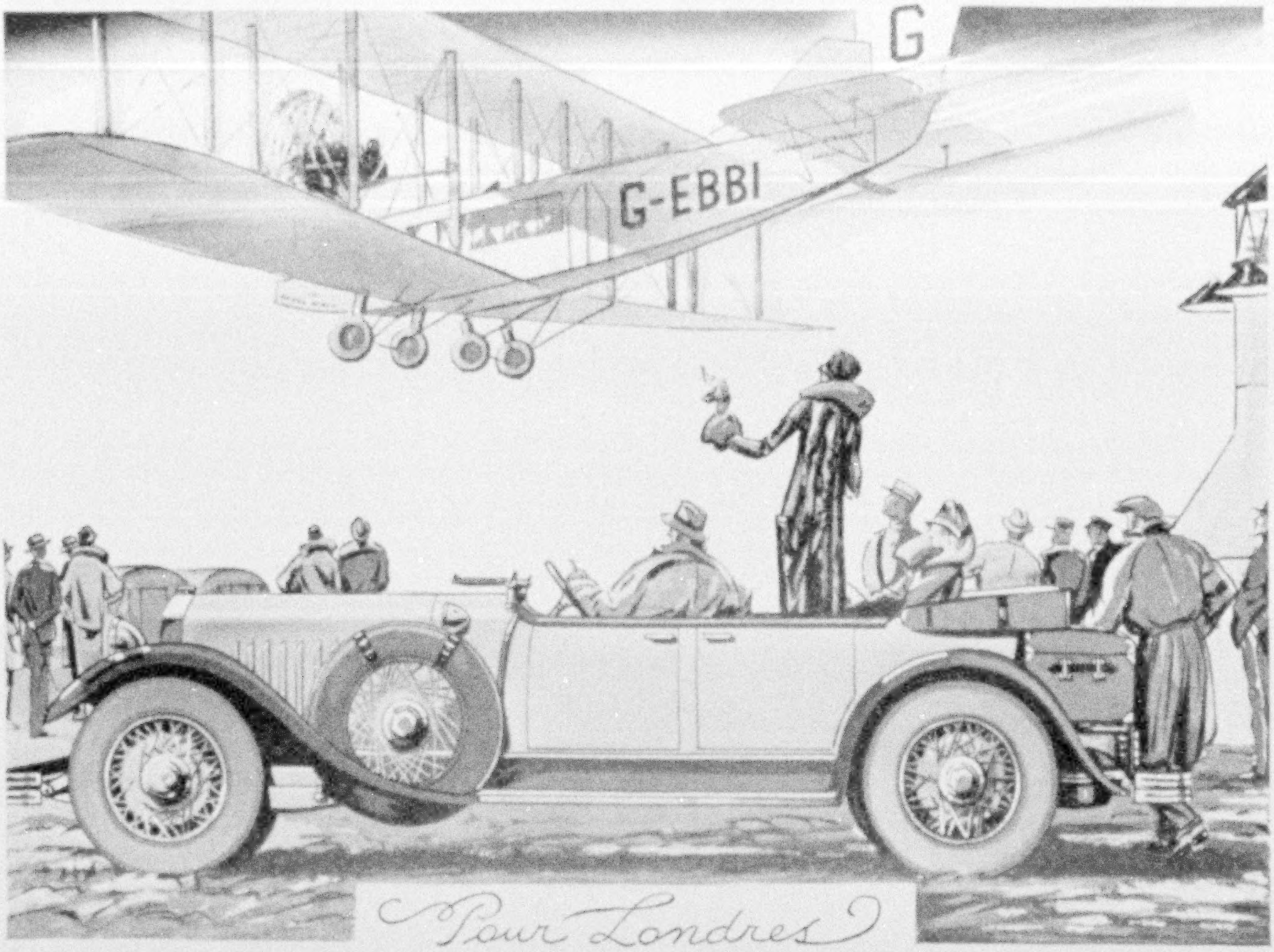

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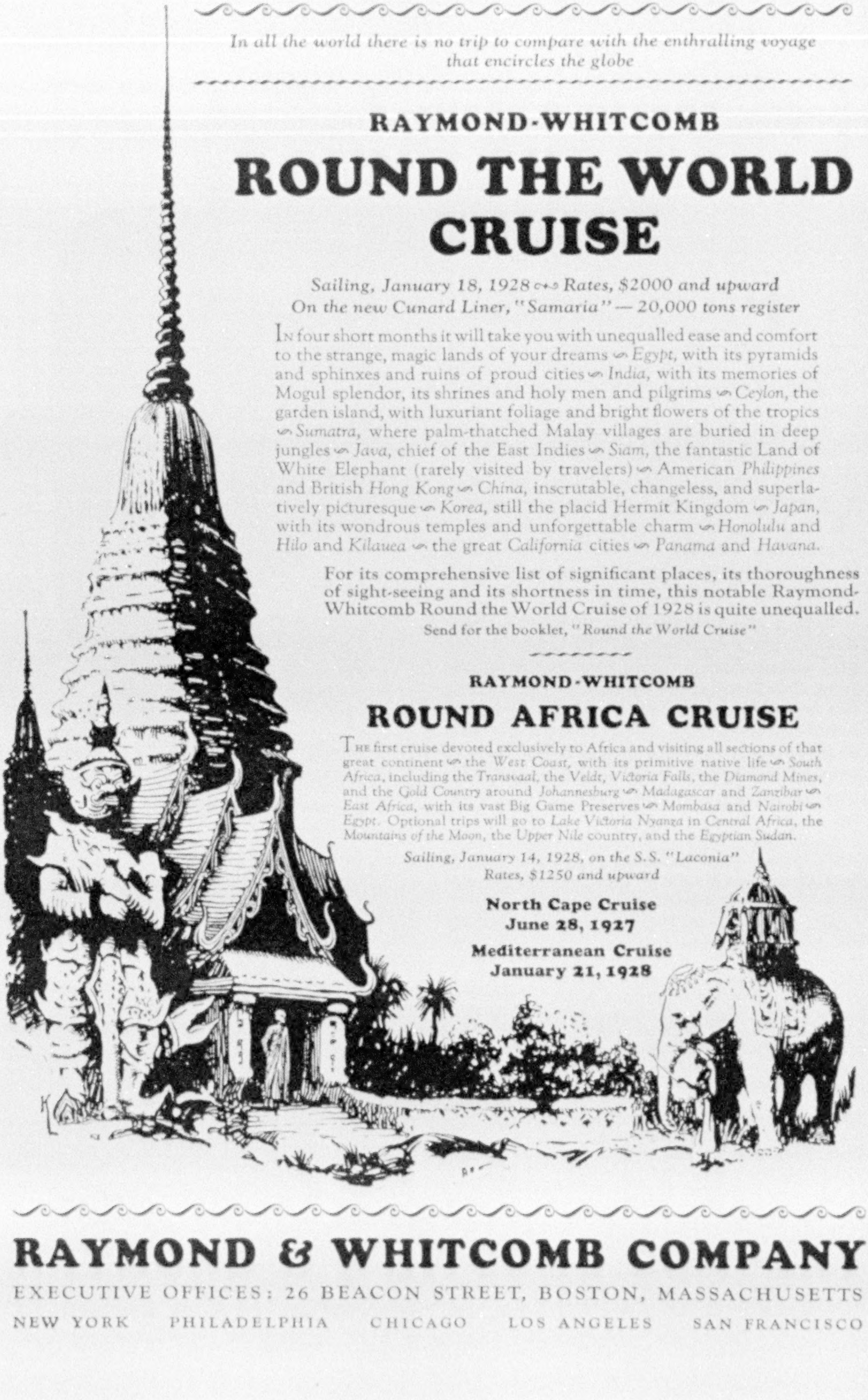

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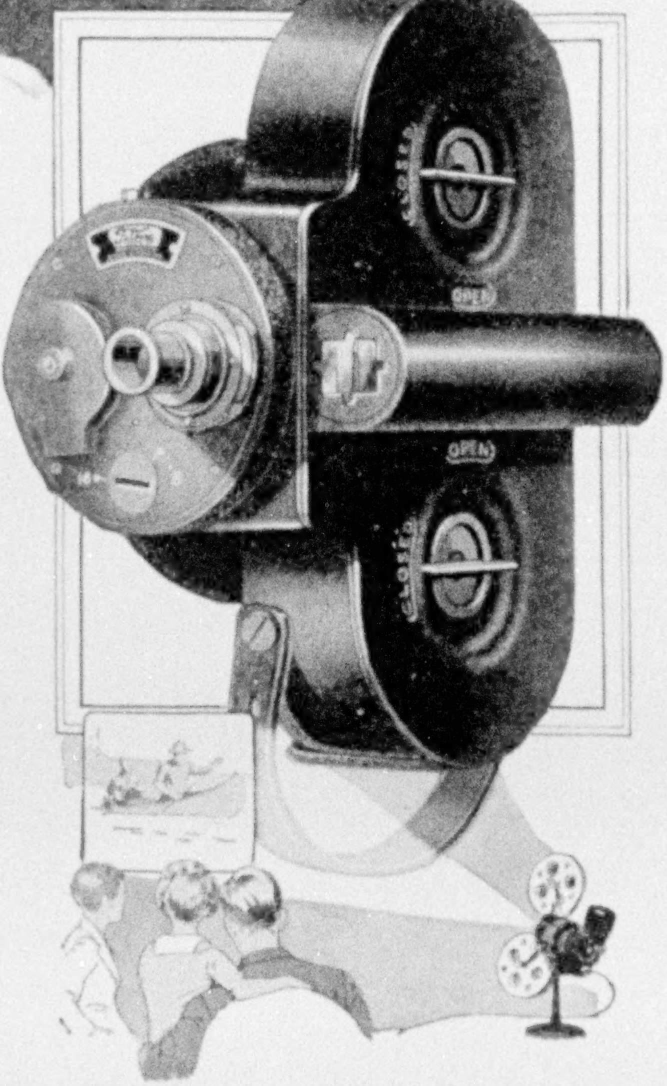

VACATION motion pictures—that catch and recreate every detail of the big thrills—are taken with the beautiful *Filmo* Camera shown here. Easier than taking snapshots. No special skill required.

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The descriptive filmo booklet "What You See, You Get," tells the whole interesting story. Your name and address here brings it. Tear out and mail to address below.

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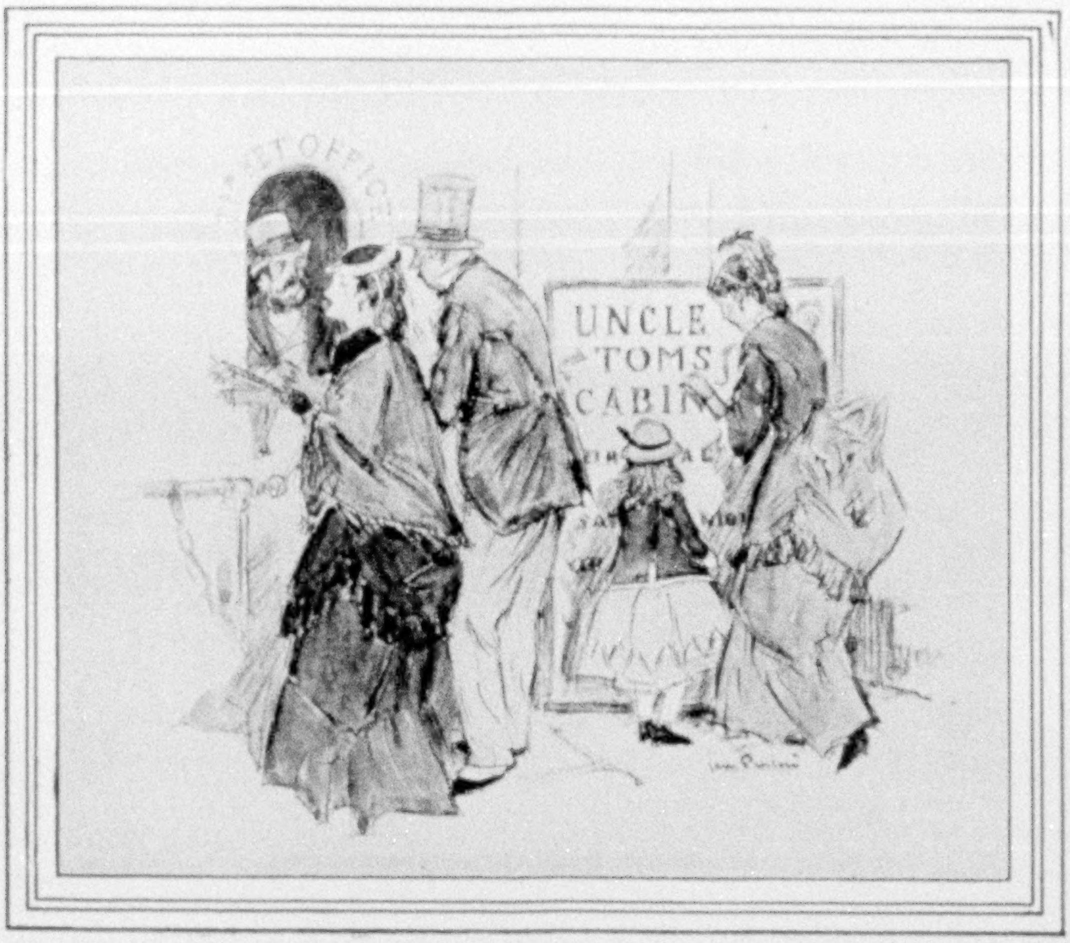

WAS YOUR PRESENT WATCH IN STYLE WHEN "UNCLE TOM'S CABIN" CAME TO TOWN?

A watch may never lose a second yet be many years slow

It is not strange that you should have a deep attachment for a watch that you have wound and consulted daily for many years, but in the eyes of others, less kindly, it is very much out of key with the times. They regard this watch, subconsciously, as a gauge of your business and social status . . . Surely a modern Elgin would be a far more honest reflection of yourself. You will know your Elgin is wondrously fine the very moment you first cradle it in your hand, for it has the "feel" of excellence and refinement.

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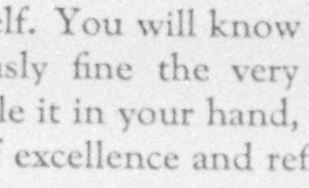

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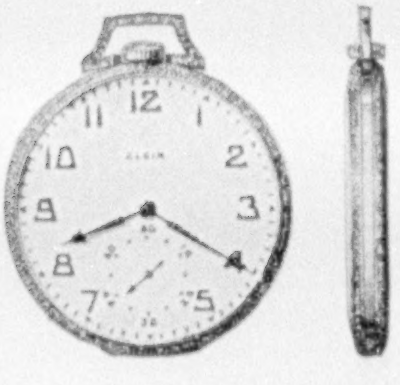

THE WOMAN'S WRIST WATCH, in a case of 18-karat solid white gold, is priced at $85.

THE MAN'S WATCH, has a 19-jewel movement and a case of 14-karat gold. Priced at $150.

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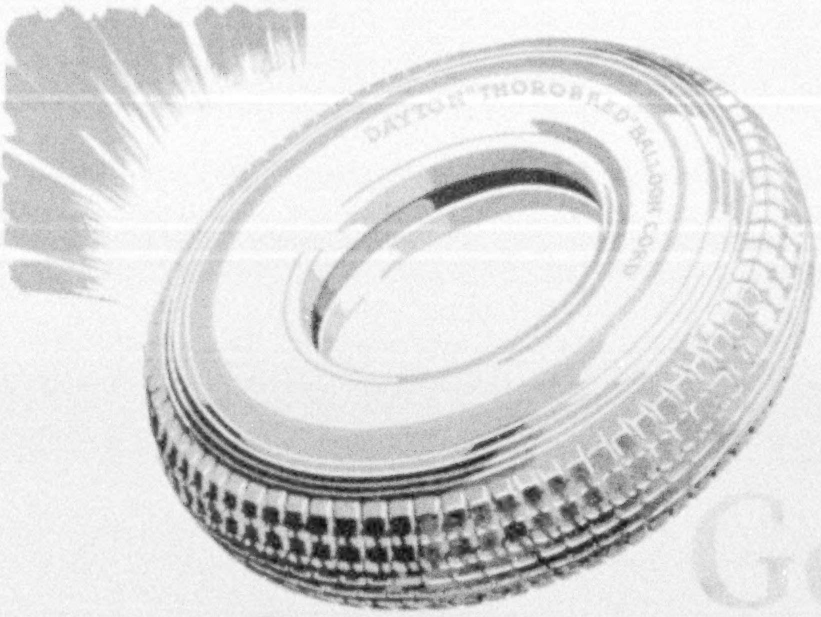
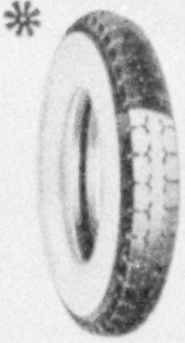


Dayton Thorobred Extra-heavy Tubes. Grey—of finest rubber. Red—of purest antimony. Steam welded and reinforced at valve base. They will hold air.

Go *farther*—go *SAFER*—go *faster* on the unsurpassed Dayton *STABILIZED* Balloon

Measured by miles—happy miles, comfortable miles, trouble-free miles—the sensational Dayton *Stabilized* Balloon is the tire value supreme! Experienced motorists proclaim it a noteworthy companion *to the pioneer low air pressure tire*—the Dayton Thorobred Cord.



Stabilized construction was developed exclusively by Dayton engineers. It combines every tire advantage—long life, easy steering, smooth riding, and utmost safety. Stabilizing bands of friction rubber draw center of tread parallel to center of rim, thus preventing "shimmying". Flat, center-traction tread has complete four-point road contact. Quick-grip, quick-release non-skid gives lightning "get-away"—no slipping or sliding. All rubber used is specially tempered by an *exclusive* Dayton process and will survive the drubbing punishment of extra thousands of miles of ruts and roads.

Ask any user what he thinks about the Dayton *Stabilized* Balloon. Learn at first hand how they enable you to go faster, go safer, go farther, and go cheaper. Examine one at the Dayton dealer near you before you buy any tire.

THE DAYTON RUBBER MFG. CO.
Dayton, Ohio

Dayton STABILIZED BALLOONS

* ON WHEELS OF LARGE DIAMETER—install Dayton Thorobred Cords—superlative tire values that shatter all mileage records. The Dayton Thorobred is *the pioneer low air pressure cord*—the first to combine comfort with safety and endurance.

The Restful Car

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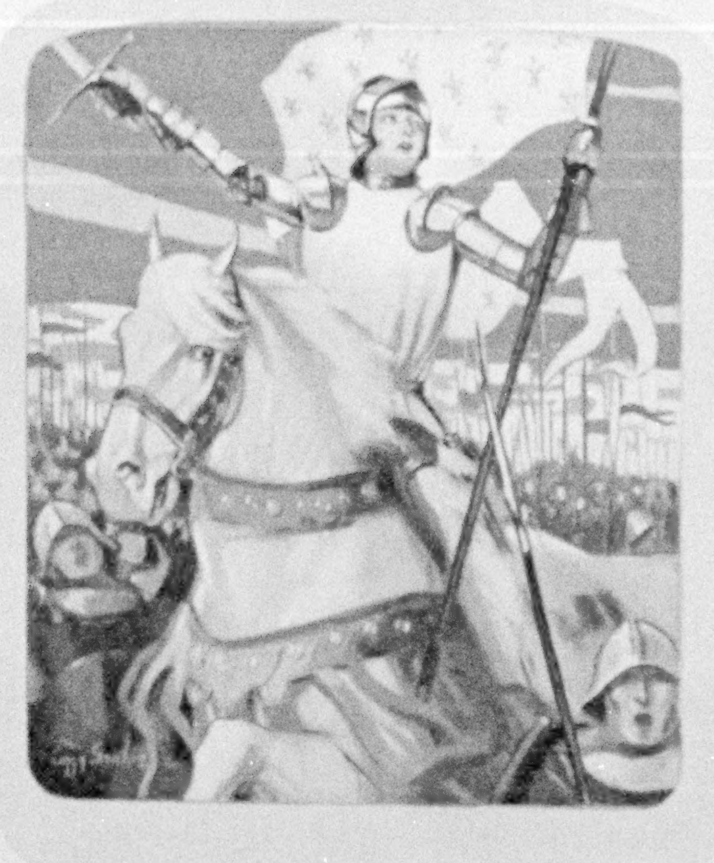
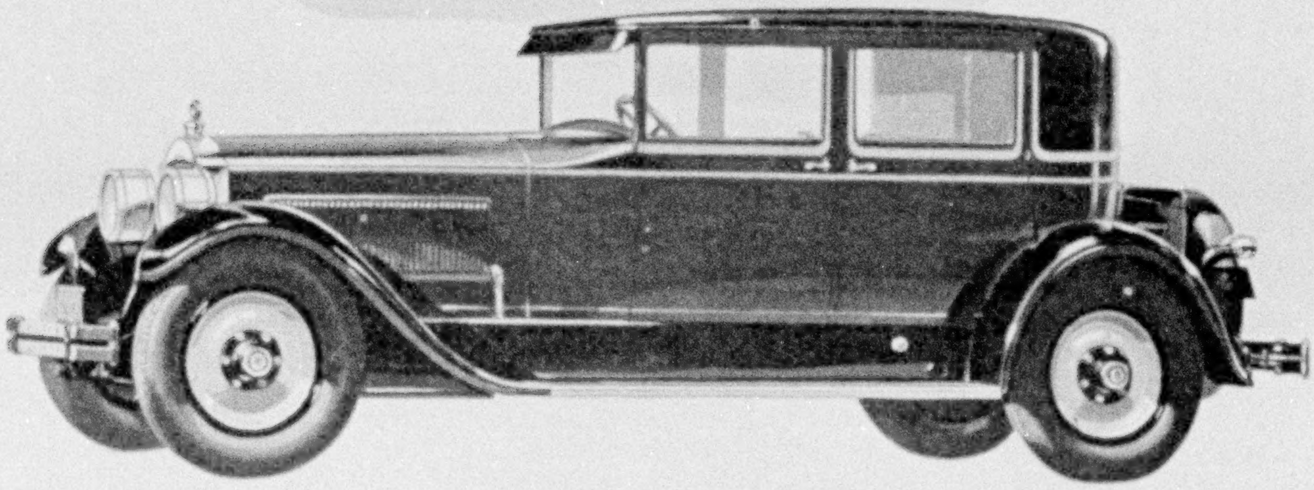


"The supreme combination of all that is fine in motor cars"



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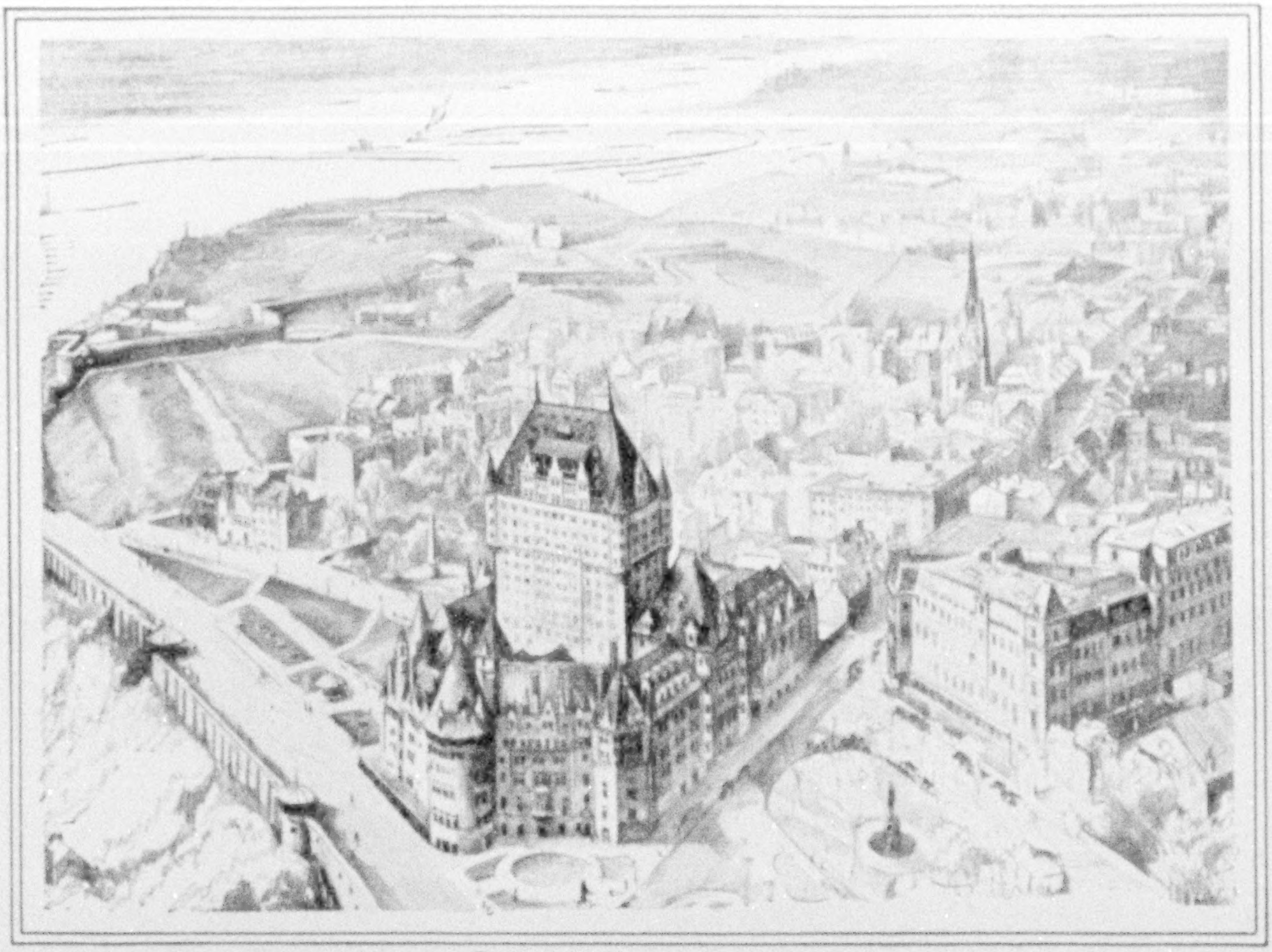

Bienvenue a Québec

Come in Spring . . *and stay awhile*

An old-world town is Québec . . . steep, twisted little streets . . . high-shouldered Norman houses . . . quaint old shrines and churches . . . history, whispering behind shutters ajar!

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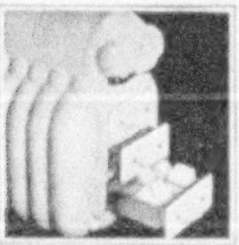

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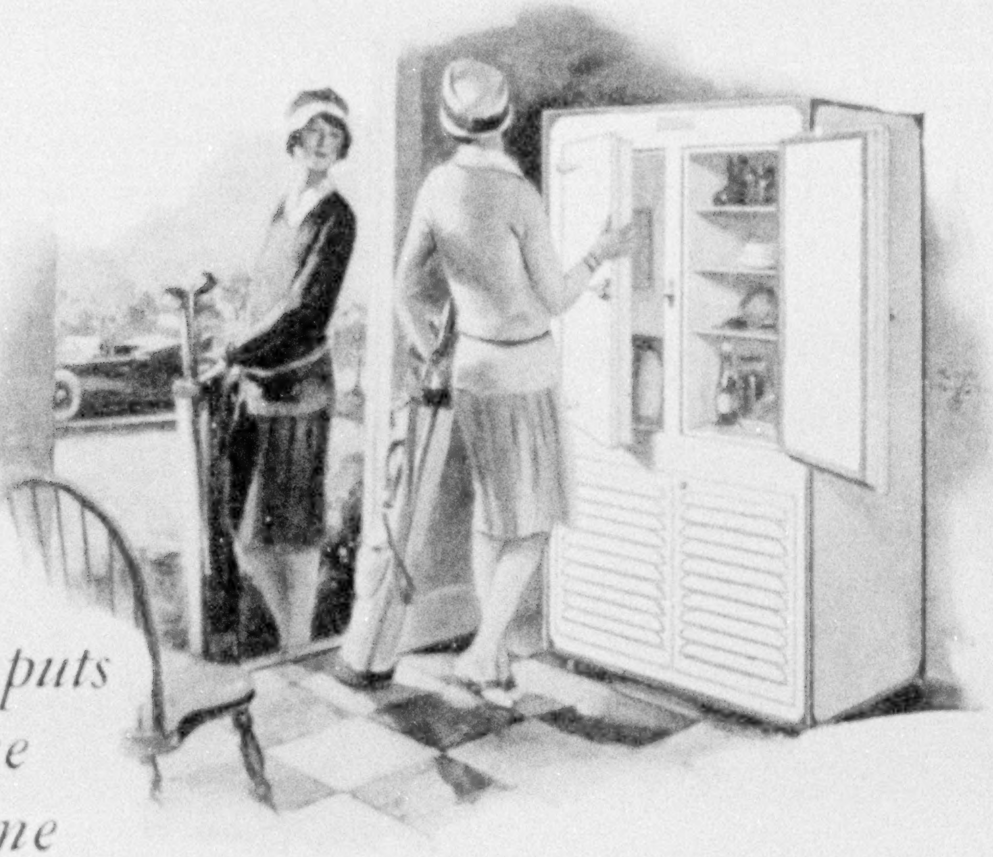

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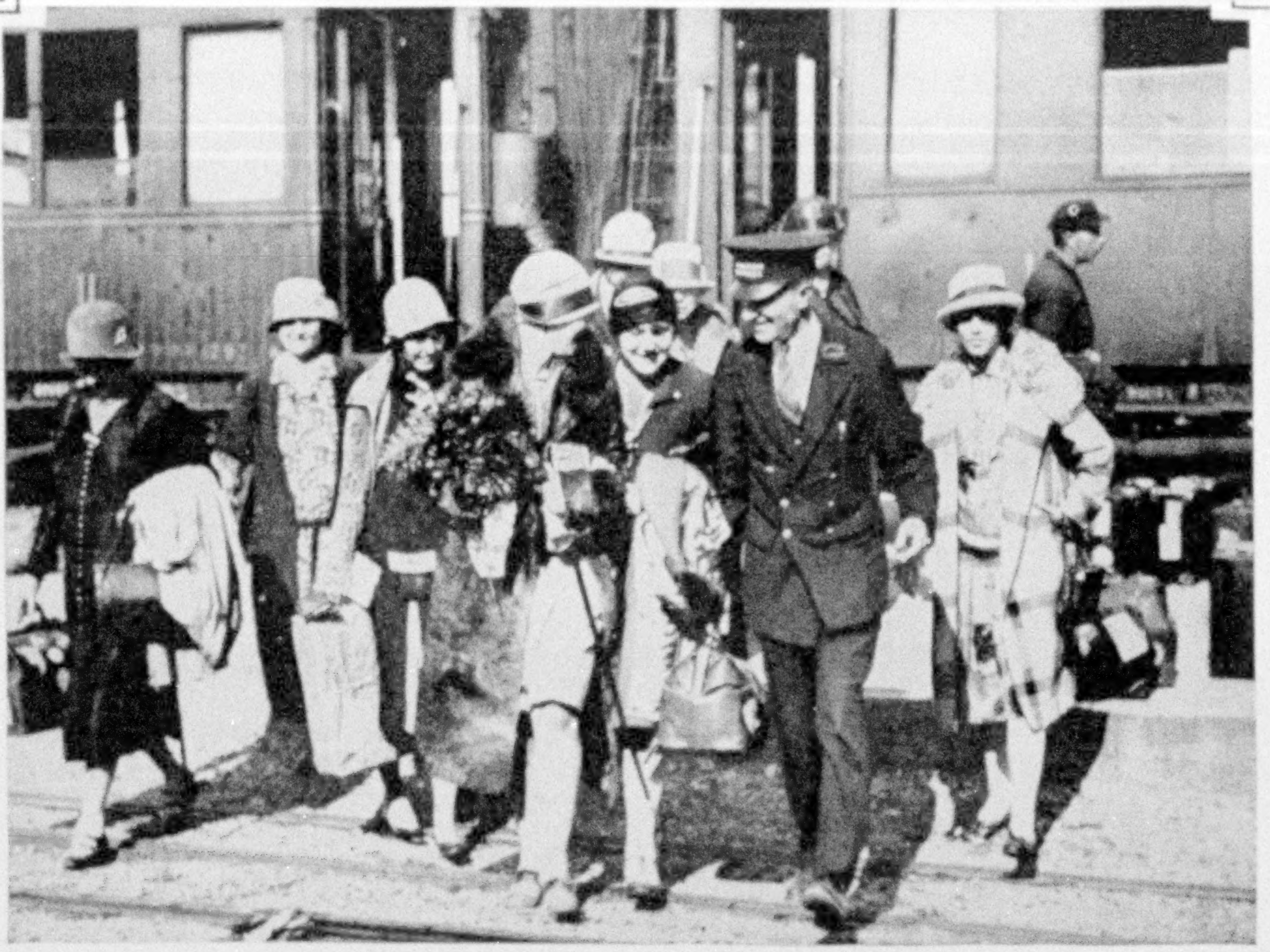

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Two above photos by Richard L. Sutton, F. R. G. S.

GRAFLEX

—the globe-trotting camera that records the thrills of travel

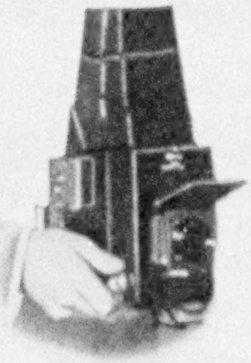
Scenes that you will always treasure . . . the sudden unexpected burst of beauty, life and action . . . are unerringly caught by this most remarkable of all cameras.

For travel pictures . . . that must be taken any time and anywhere on dark days, in shadows, even in the rain . . . for natural, unposed records of children . . . for the best that photography offers, in a greatly enlarged field . . . Graflex is the premier camera.

With a Graflex you see the image of your subject, full size, and in clear detail. You can get exactly the composition you want . . . almost instantly.

The large lens gathers, and the focal plane shutter admits more light . . . assuring the best results under average conditions *plus* pictures other cameras would lose.

See these Graflex features at your dealers, or write for booklet A6.



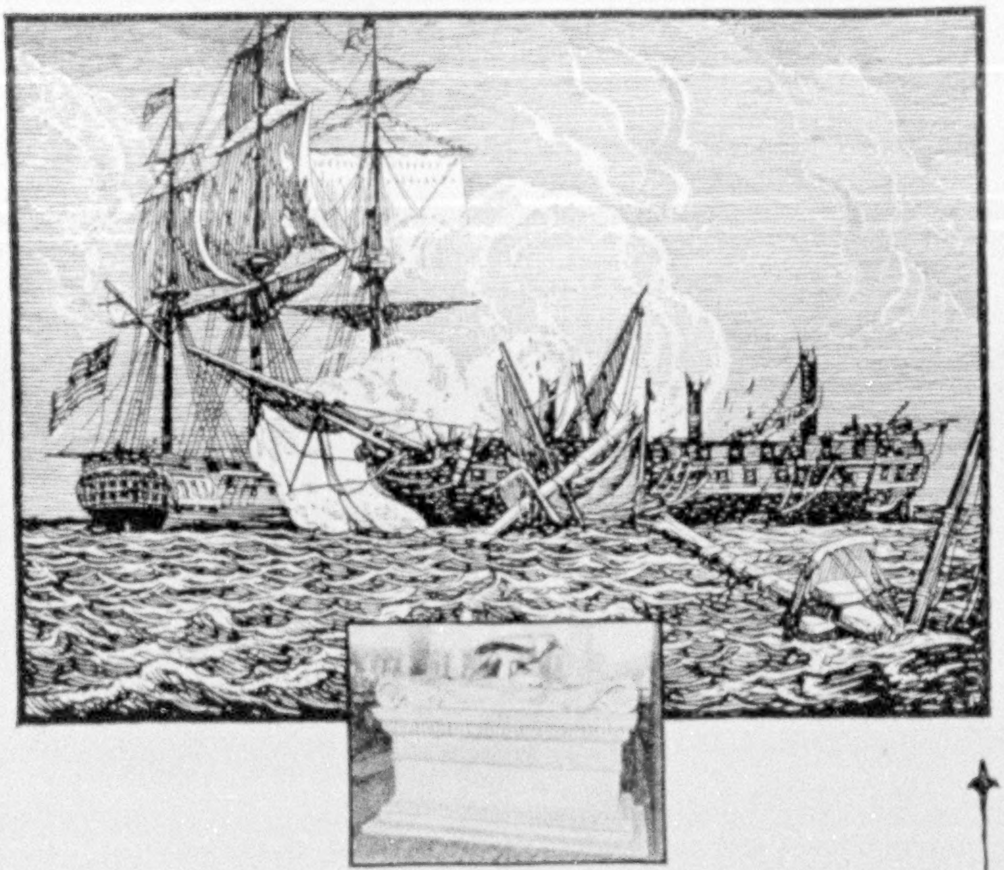
Revolving Back GRAFLEX Series B with Kodak Anastigmat Lens f. 4. 5. $85.00. Other models up to $260. Sold by Eastman Kodak Company Dealers.

THE FOLMER GRAFLEX CORP.
Rochester, New York

Number Five of a Series

Isaac Hull

Whose fame is linked forever with that of his ship, the frigate *Constitution*, our beloved "Old Ironsides." His signal victory over the British frigate *Guerriere* placed the American navy before the world as a force to be reckoned with.



Isaac Hull, commander of "Old Ironsides," is buried under an altar tomb in Laurel Hill Cemetery, Philadelphia, Pa.

Into your memorial you build your memories and hopes. It is the outward sign of love, reverence and devotion. Can you leave aught undone to make it worthy?

Rock of Ages

"The Flawless Barre Granite"

"Mark Every Grave"

Our Certificate of Perfection, when requested from any memorial dealer, assures you of our personal inspection through the various stages of completion and is your perpetual guarantee against defective workmanship and material.

Write for Booklet "G"

ROCK OF AGES

ROCK OF AGES CORPORATION
BARRE, VERMONT

*He Can Prevent
This Hidden Danger*

Many ills that ravage health in the years of maturity can be traced to infection of first teeth. So, to protect health, to insure sound second teeth, begin taking your children to the dentist at an early age.

Why 4 out of 5 are penalized

The true worth of a healthy mouth cannot be computed in dollars and cents. It is far too precious.

Look around you. The faces of men and women you pass on the street reveal the truth. Neglect is taking its toll in health. And 4 out of 5 after forty (and thousands younger) are innocent victims of that grim foe—Pyorrhea.

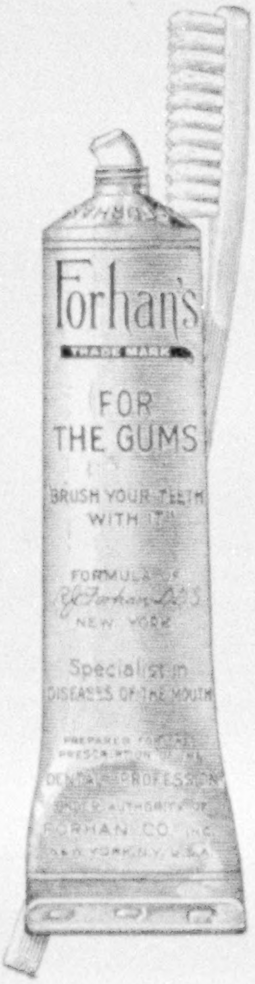
Make sure that you and your children will never be among the unfortunate 4 out of 5. Let your dentist examine teeth and gums at least twice each year. And start using Forhan's for the Gums, regularly, morning and night. Teach your loved ones this good habit.

This dentifrice, the formula of R. J. Forhan, D. D. S., for many years a Pyorrhea specialist, helps to thwart Pyorrhea or to check its course—if used regularly and in time. It firms gums, and also keeps teeth white and protects them against acids which cause decay!

Be on the safe side and start using Forhan's for the Gums, now. It is health insurance that provides protection against dread Pyorrhea. At all druggists, in tubes, 35c and 60c.

Formula of R. J. Forhan, D. D. S.
Forhan Company, New York

Forhan's
FOR THE GUMS


Forhan's
TRADE MARK
FOR
THE GUMS
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SIAM'S CAPITAL, literally sitting *in* the River Menam, where its houses are largely built—the strange, picturesque habitation of the Siamese.

A bit of throbbing, exotic life between the Indian Ocean and the South China Sea, this Southern Asiatic port lies on the route of the

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aboard the specially chartered, famous Cunard Cruising Steamer

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Again we present an entirely new and unique deviation in World Travel—a most complete, superbly interesting panoramic journey through the Northern and Southern Hemispheres—in fact *two cruises in one.*

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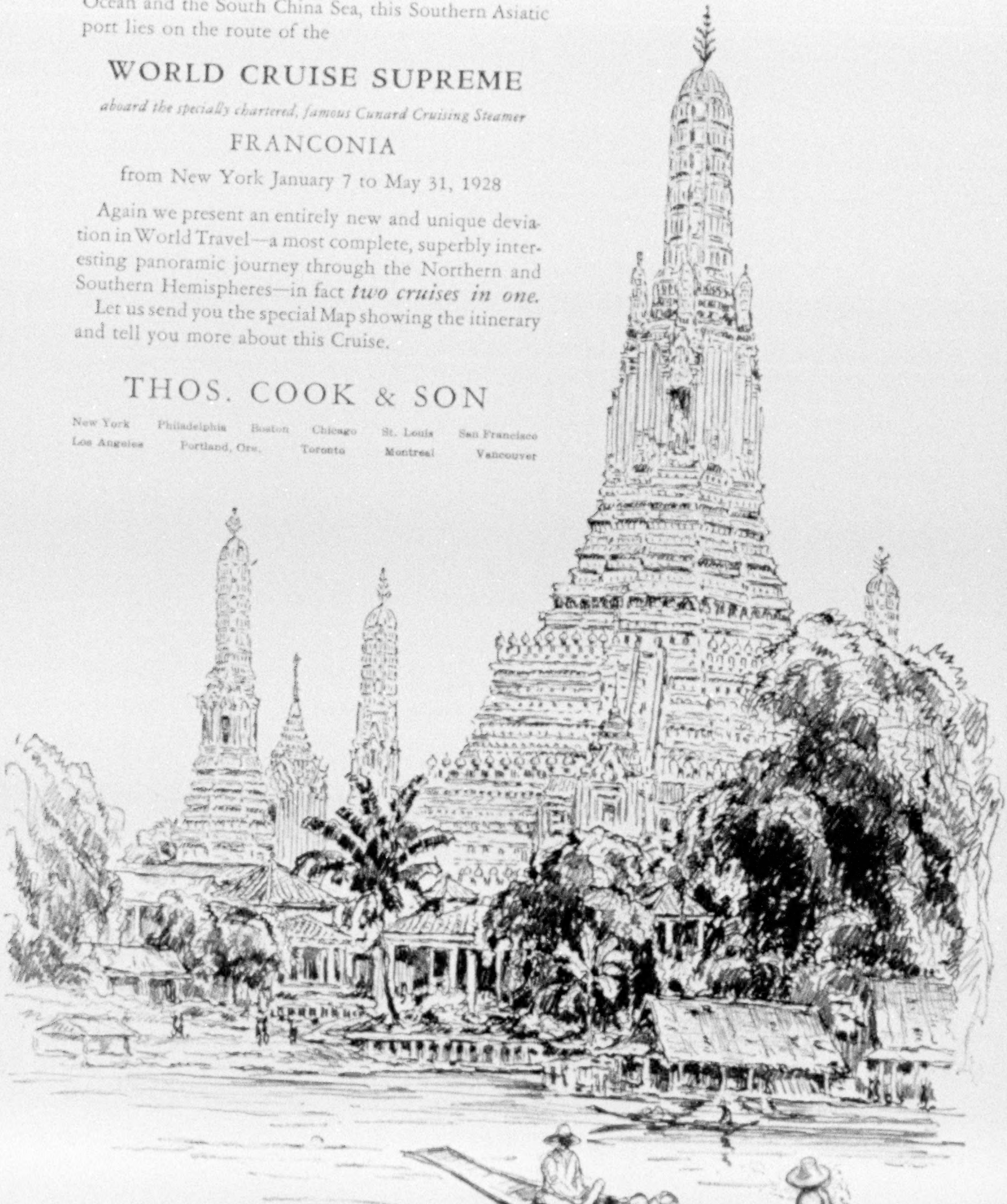
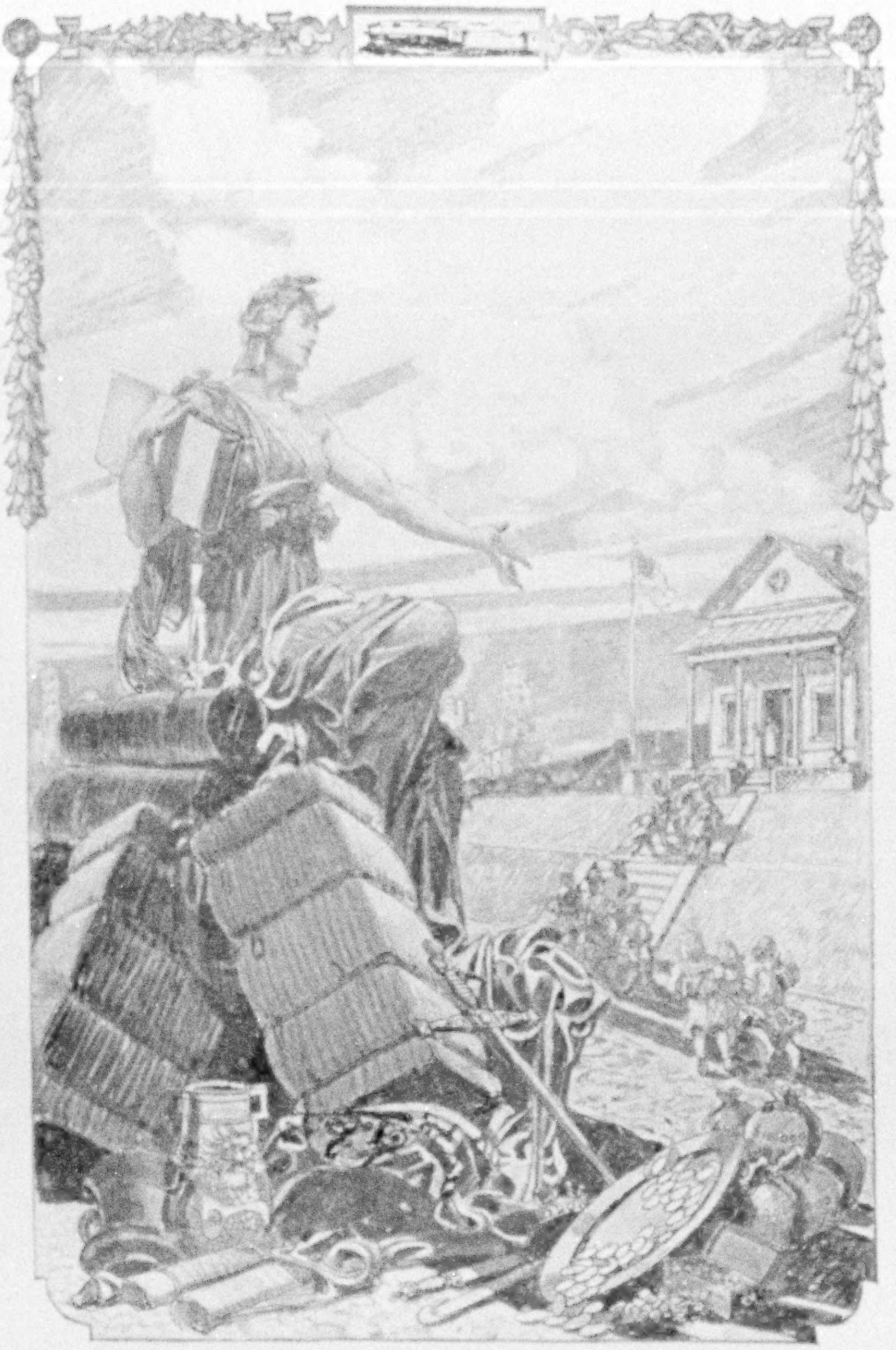




❧

The Southern States are using their prosperity to bestow upon young men and women those educational advantages which make life broader and happier.

The Southern Railway System pays school taxes in the states it serves amounting to three million dollars per year.

❧

The Development Service of Southern Railway System, Washington, D.C., will gladly aid in securing industrial locations, farms and home sites in the South.

❧

"The wealth of a nation is men

—not silk, and cotton, and gold."

Such is the spirit of the South.

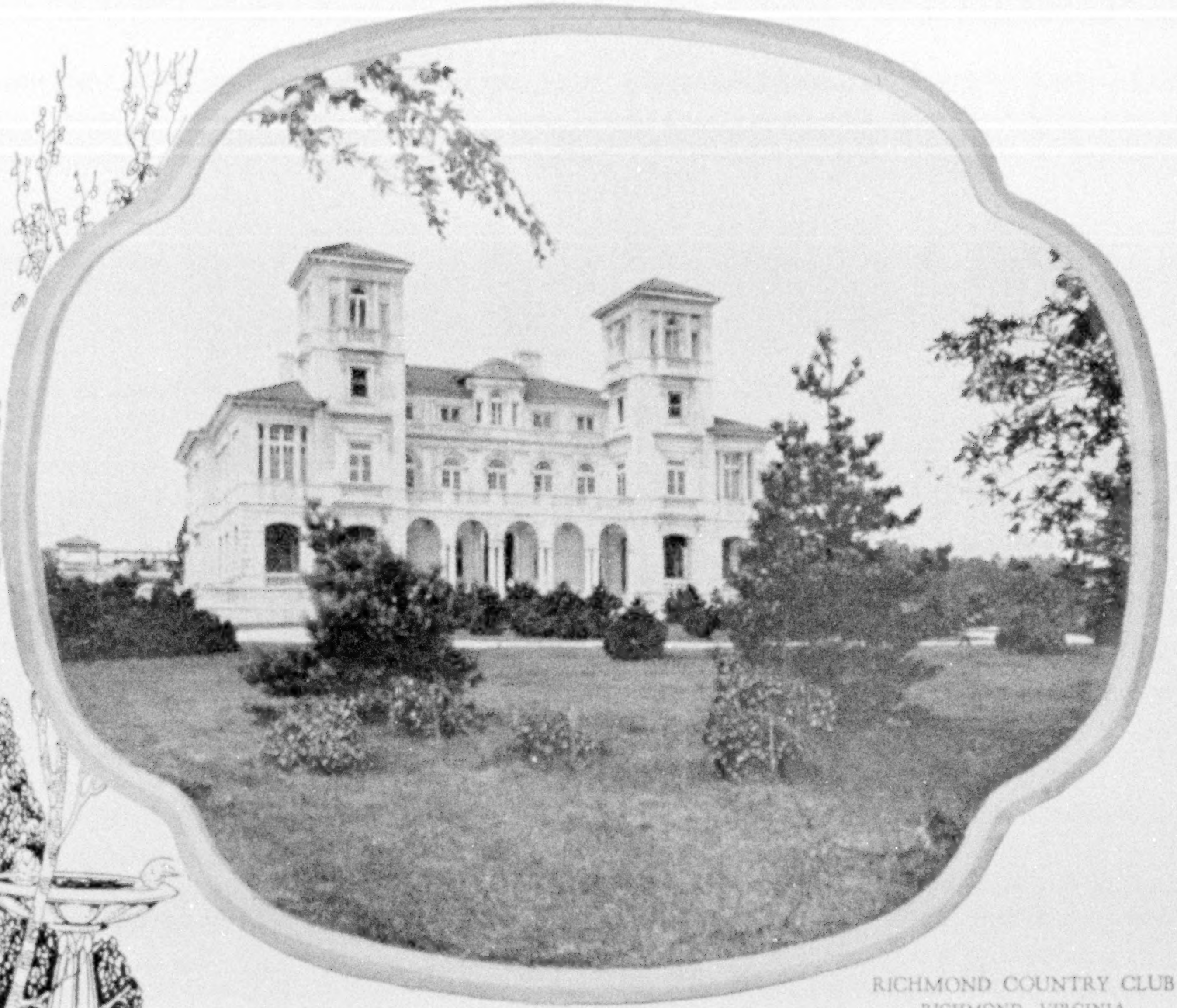
In 1900 there were 73,000 school teachers in the states of the South served by Southern Railway System, and the appropriation for education amounted to only 90 cents per inhabitant. But in 1924, the appropriation was $8.00 per inhabitant, and the number of trained teachers had increased to 143,000.

In 1900 only 64.8 per cent of the children of school age in these states attended school. But in 1924, the latest year for which complete figures are available, 81.6 per cent of them attended school.

SOUTHERN

RAILWAY THE SOUTHERN SR SERVES THE SOUTH *SYSTEM*

THE SOUTHERN SERVES THE SOUTH



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RICHMOND, VIRGINIA
Noland & Baskerville, Architects

A Pearl—
on green velvet

A poet has said that architecture is best described as "frozen music." Its harmony wrought in clear Georgia Marble, the palatial Richmond Country Club is truly a symphony-in-white.

Beauty is an illusive and perishable thing, but in Georgia Marble it has been caught into a permanence and strength that is unsurpassed by any other building material.

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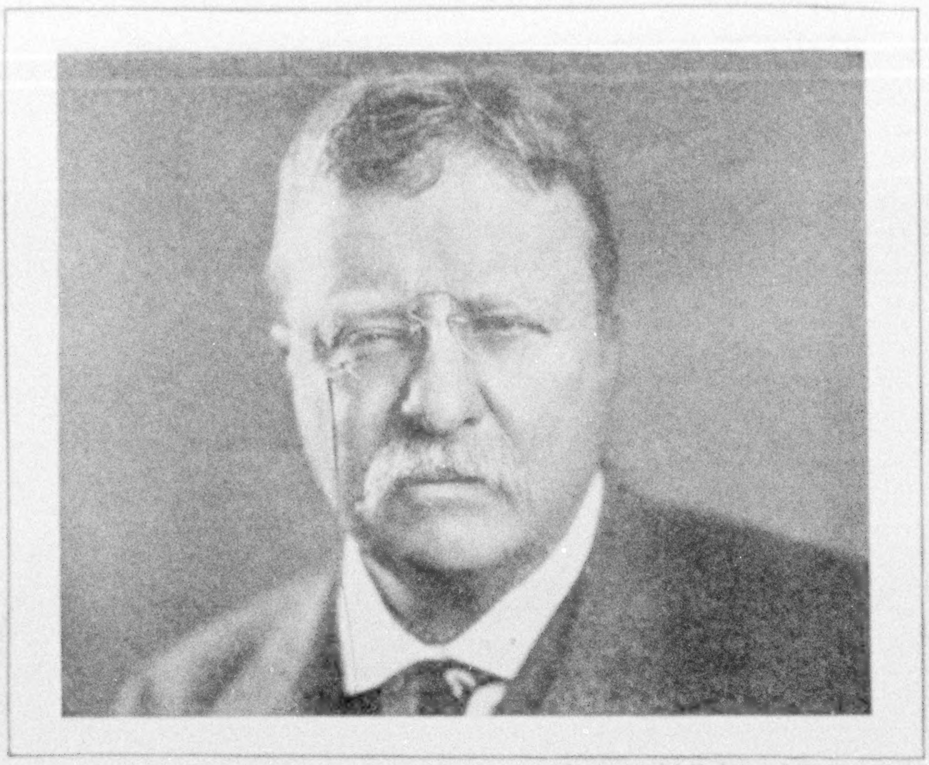

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ONE of the first to appreciate the safety and convenience of *certified* cheques for travelers was Theodore Roosevelt. On his famous "River of Doubt" expedition in 1913 he carried A·B·A *Certified* Cheques.

Wherever you go you, too, can guard against loss or inconvenience by carrying these *official* travelers cheques of the American Bankers Association.

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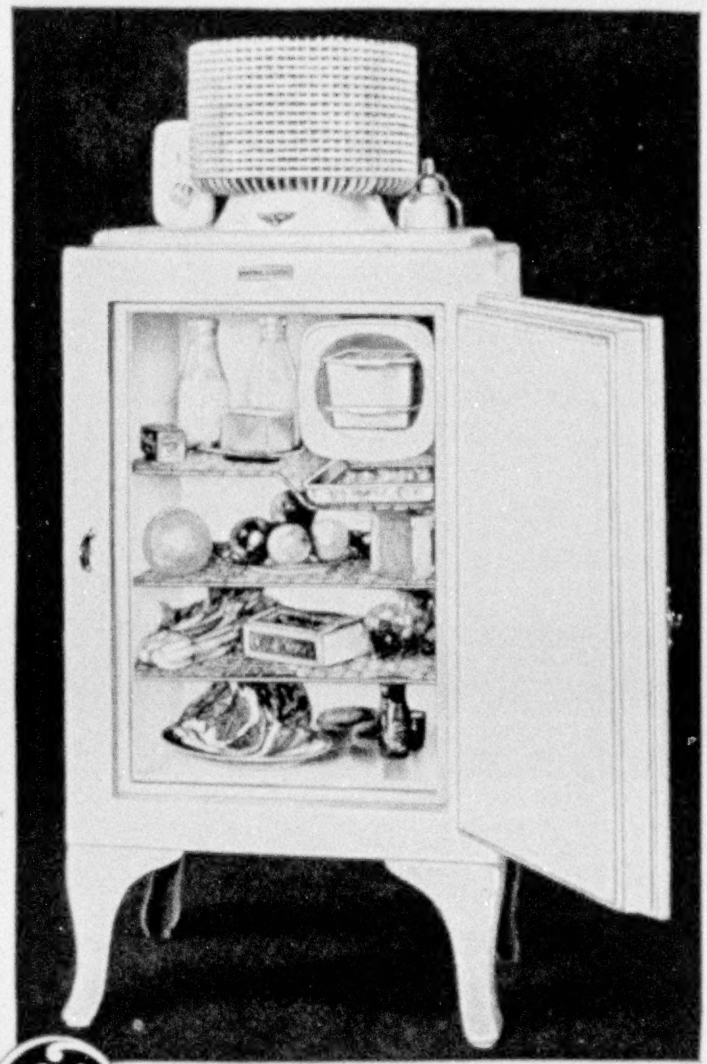
Now Comes – Simplified Electric Refrigeration

THE CREATION OF GENERAL ELECTRIC— THE LEADING RESEARCH ORGANIZATION OF THE WORLD



Refrigerator

THERE is now a new development in electric refrigeration for the home. An amazingly *simplified* icing unit by General Electric Company. A factor everyone, from now on, must take into account when considering an electric refrigerator. Electric refrigeration—above all things an *electrical* problem—has been solved *electrically* by the world's outstanding group of technical experts.

The General Electric icing unit is so supremely engineered and so precisely constructed that its operation is practically *noiseless* three feet from the refrigerator. It uses very little current and no special wiring is needed to hook it up—the regular house circuit is adequate.

The entire mechanism is housed in an hermetically sealed casing mounted on top of the cabinet. You *never* need oil it—*never* need touch it. It operates automatically, maintaining a *practically constant* temperature in the refrigerator.

Only an institution like General Electric Company—with its world-wide electrical resources—could have produced so outstanding an electrical achievement.

It marks 15 years of intensive research. Some 64 leading engineers cooperated in its development. Their goal was to produce the *simplest,* most *practical* electric refrigerator Electrical Science could achieve.

Now thousands who have debated the purchase of electric refrigeration will want to see this new creation, will want to find out what General Electric has done in the field. Buying any other way is a mistake.

Remember that the efficiency of any electric refrigerator you may purchase rests basically on its efficiency as an *electrical* device.

The General Electric Refrigerator is obtainable in various sizes suitable for every home. Different models are now on display at lighting companies and dealers everywhere.

Write for Booklet No. 6-N. It tells all about this new-day refrigerator.

Electric Refrigeration Department
of General Electric Company
Hanna Building, Cleveland, Ohio

GENERAL ELECTRIC

FRANK'S
6th Annual

MEDITERRANEAN

CRUISE DE LUXE
Jan. 25, 1928

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EGYPT HOLY LAND
and practically Every Port of Historic and Romantic Interest

Again The Famous Transatlantic Liner

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exclusively chartered for our guests, limit 390; especially adapted for cruising; spacious decks, two elevators, unusually large and well ventilated cabins—all with hot and cold running water—suites, private baths; finest Cunard service and cuisine.

Rates, reasonable for luxurious service, include attractive trips at every port, best hotels, automobiles, special trains, guides, etc.

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Independent or With Escort, Securing All Reservations in Advance. Send for Book E.

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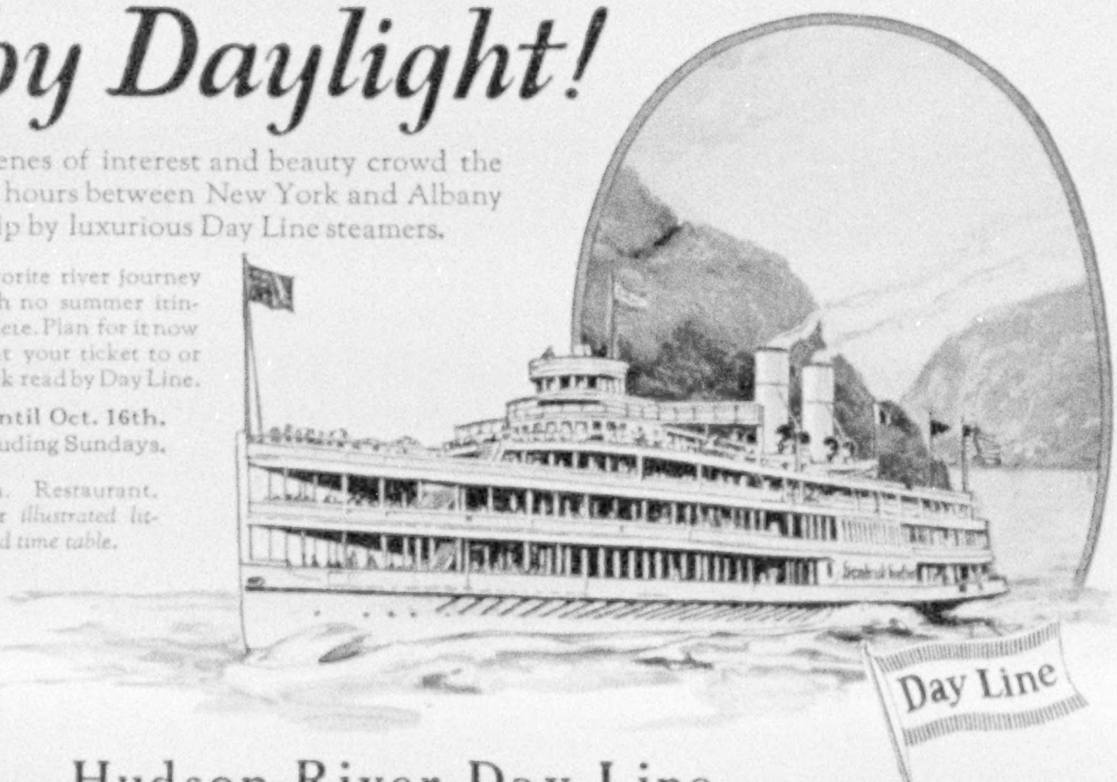
America's favorite river journey without which no summer itinerary is complete. Plan for it now by asking that your ticket to or from New York read by Day Line.

Service until Oct. 16th.
Daily including Sundays.

Orchestra. Restaurant. Write for *illustrated literature and time table.*



Hudson River Day Line
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Low Summer Fares to
CALIFORNIA—$90.30
round trip from Chicago
to SAN FRANCISCO
America's Coolest Summer City
Gateway to Hawaii,
Australasia and the Orient

Similar low fares from other cities. Only $18 additional fare for full Pacific Coast Empire Tour

How does the Californian get so much fun out of Life? How can he spend so much time away from work—yet make his work bring him so many more dollars?

CALIFORNIANS *do* get more fun out of life. About two-thirds of us, who lived in other states before we moved out here, will tell you so from our own knowledge. And you can come to San Francisco this summer, enjoy a wonderful California vacation, and see for yourself! By rail, it's almost a business day closer to Chicago with the new shortened train schedules; by auto, the new Victory Highway in conjunction with the Lincoln Highway leads directly through the mountain passes into San Francisco.

Californians, with one car for every three people, own proportionately more automobiles than the people of any other state and we use them more—for camping, fishing, week-ending trips to the mountains or up and down the seashore. There are no rainy days in summer to tie us down; in winter months our hills are green, our sunshine glorious; there is less rain than in the East in midsummer.

It's fun even to be able to avoid the bitter winters that we used to know. San Francisco's climate lets us play golf on green fairways from one year's end to the next—and we do. There are 20 golf courses (two municipal) in and near San Francisco now, and we're building more.

All year long the days in San Francisco are full of snap and sparkle—only a little warmer (average 59°) in summer and only a little cooler (average 51°) in winter. San Francisco's factories and big industrial plants that serve the markets of the Pacific Coast, Hawaii, Australasia and the Orient can prove that this favorable climate adds a substantial percentage to production. And it has helped to make this state the third largest in agricultural production.

Here is a letter, typical of what you will hear from thousands of other Californians when you come; exactly what you will say, yourself, after you have lived here:

> *"San Francisco, March 3, 1927.*
>
> "Most men who like to fish and shoot, and play golf, and camp in the mountains, are situated as I am—their years are divided into fifty weeks' work and two weeks' play.
>
> "But I live in California now. Other men, thousands of them, come clear across the continent every summer to do what I can do every week-end. In a morning's drive from San Francisco I can be in the Sierras, with trout and bacon sputtering in the pan by sundown. On either hand the mountains stretch a thousand miles—north to Lassen Peak and Shasta, south to Yosemite, the Minarets, Sequoia National Park and the great jumble of 13,000-foot granite peaks and lakes that lie above them.
>
> "Twenty summer vacations spent in different parts of the Sierras have shown me the impossibility of seeing more than a small part of them in a lifetime.
>
> "These things mean a lot to me, and to my family. We are as well-off, materially here as we would be anywhere, and probably more so. To us, at least, moving to California is a step we could never think of retracing.
>
> *(Name on request)* E.H.B."

WHAT THE *Californian* OWNS

Climate: Year-round producing climate.

Growth: From 3,500,000 to 5,000,000 population in six years—three times faster than the United States average.

Wealth: Twice the national average of wealth, twice the average number of savings bank depositors. Only three states report more income tax returns.

Health: Six of the fifteen most healthful cities in the United States are in California.

Education: The Californian's schools share first rank only with Massachusetts in efficiency.

Recreation: Four National Parks, a thousand miles of ocean shore, a thousand-mile-long Sierra playground, 30,000 square miles of National Forests, 42,000 miles of paved highways and improved roads.

Crops: Over $600,000,000 yearly. Six million acres under irrigation.

Industry: One of the youngest states, California is eighth in value of manufactured products.

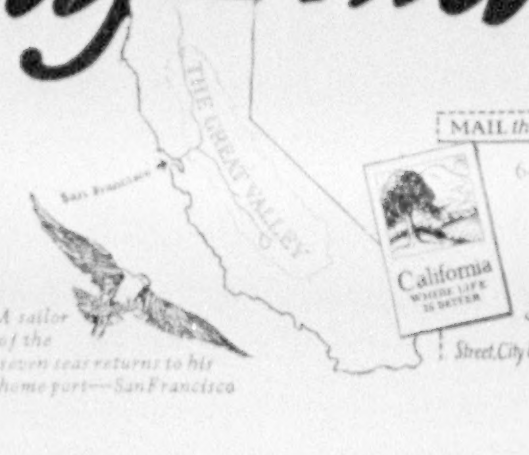
Markets: From San Francisco's great harbor, the largest on the Pacific Coast, the Californian successfully sells his manufactures and crops throughout the whole world.

For every Californian—here or on the way—these advantages spell Opportunity

California

Now write to Californians Inc., a non-profit, non-partisan organization of San Francisco citizens and business organizations interested only in the sound and permanent development of California's resources, for further information about the questions that interest you particularly. The first step is to send for this free booklet, "California—Where Life Is Better." We have made it easy for you with this coupon—send it today!

Pacific Ocean at Carmel



A sailor of the seven seas returns to his home port—San Francisco

MAIL *this coupon for* FREE BOOKLET *about life in California*

6-27

Californians Inc.
Headquarters
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140 MONTGOMERY STREET, ROOM 505
Please send me "California, Where Life is Better"

Name ____________________

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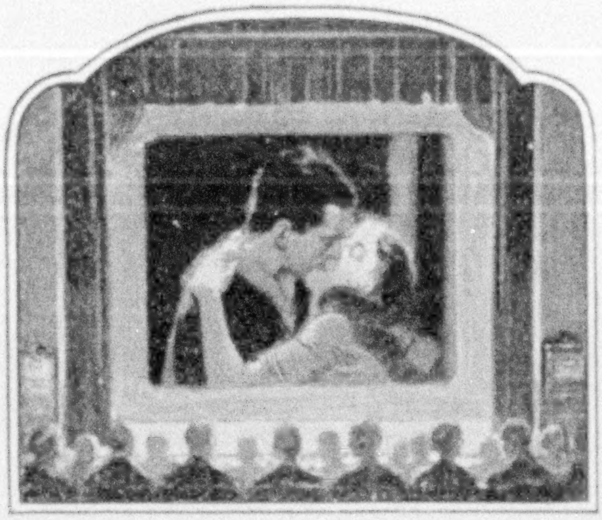


You Have Seen Movies *taken with* this CAMERA!

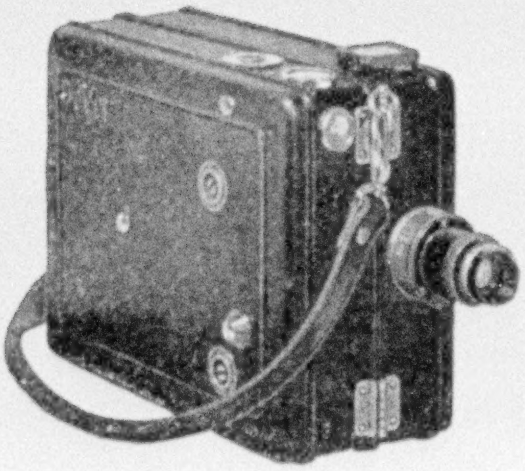
EVERY week movies taken with this remarkable camera appear in many theatres. News reel weeklies, even parts of feature productions are taken with the DeVry. Although designed for the amateur, the DeVry has gained wide recognition among professional cameramen.

Taking movies with the DeVry is as easy as taking snapshots with a box camera—no cranking —no tripod. Just point the camera, press the button and you are taking movies.

With the DeVry you can "shoot" from any position. It has three view finders instead of one. It loads in daylight—starts and stops smoothly—holds 100 feet of standard theatre size film, the kind professional cameramen use. Movies taken with the DeVry can be projected with the same sharp clearness year after year.

The DeVry sells for only $150.00. Send today for your FREE copy of our new booklet, "Just Why the DeVry Takes Better Movies."

The DeVry Corporation
1111 Center St. Dept. 6-F Chicago, Ill.



DeVry
Standard—Automatic
MOVIE CAMERA

SEE JAPAN

-through paper windows

SIP TEA in a satiny house. Look out through windows made of . . . paper. Truly! For it's Japan. Come from lovely Lake Biwa through twisting tunnels . . . in a torch-lit boat . . . the light slipping over the coppery faces of the rowers. Visit the Second Moon Temple. Forget, for awhile, that you are an Occidental . . . breathe deeply the fragrant incense of the Far East!

10 days . . . and you are there. Sail on a luxurious "Empress" from Vancouver, via Victoria. Enjoy the cheerful, home-like cabins . . . exceptionally well ventilated for sailing the tropical seas. Too, these are the fastest Liners on the Pacific . . . chosen by those who know that comfort makes traveling a joy.

When you have explored Nippon Land . . . and its shops! . . . sail to Chinese ports. Then to the Philippines. At Manila, ride in a comical *calesa* perched on two wheels. You can see so many queer and interesting things! Write for booklets.

Always carry Canadian Pacific Express Travelers Cheques

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BRYCE
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"Nearest to the SUPERNATURAL we will ever get on this earth!"

These are the words of a world traveler, who added, "I spent a solid week at Bryce, and next year I have got to go over it again and see if I can't possibly assimilate it all."

SCENIC UTAH, with its Zion National Park, Cedar Breaks and Bryce Canyon, is the newest of America's stupendous wonderlands, and contains more brilliancy of color, a greater variety of color and form than anything else in Nature.

SALT LAKE CITY is the gateway to sixty-two national parks and monuments, including Yellowstone and the north rim of the Grand Canyon of the Colorado. Railroads and splendid highways interconnect this entire region. Hotels and camps assure comfort.

SALT LAKE CITY itself holds special interest—its romantic history—symbolic monuments and preserved landmarks—the rare beauty of a modern metropolis and rugged mountains sloping skyward from the very edge of the city—the unique diversions, such as a dip in Great Salt Lake, where you float like a cork!

It's a city of 150,000, with splendid hotels; converging point of six railroad trunk lines; central distributing point for the Intermountain West; and capital of America's richest metal-mining region.

Visit some of the world's most productive mines near by. Utah leads the nation in silver production, is second in lead, third in copper and fourth in gold. The State's metal mines paid $15,073,500 in dividends last year. The value of Utah's mineral production in 1926 was $119,270,000, or more than 2¼ million dollars a week!

Salt Lake City

"Center of
SCENIC AMERICA"

You can visit Salt Lake City at no added transportation cost—all railroads grant a *free stop-over here*. Mail the coupon for further information.

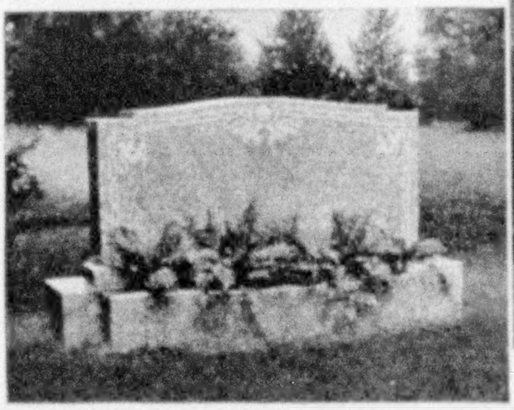
The Mayor, Chamber of Commerce Bldg., Salt Lake City, Utah:

I am planning to visit Salt Lake City this year, and I would like further information on the subjects checked. Dept. G-1

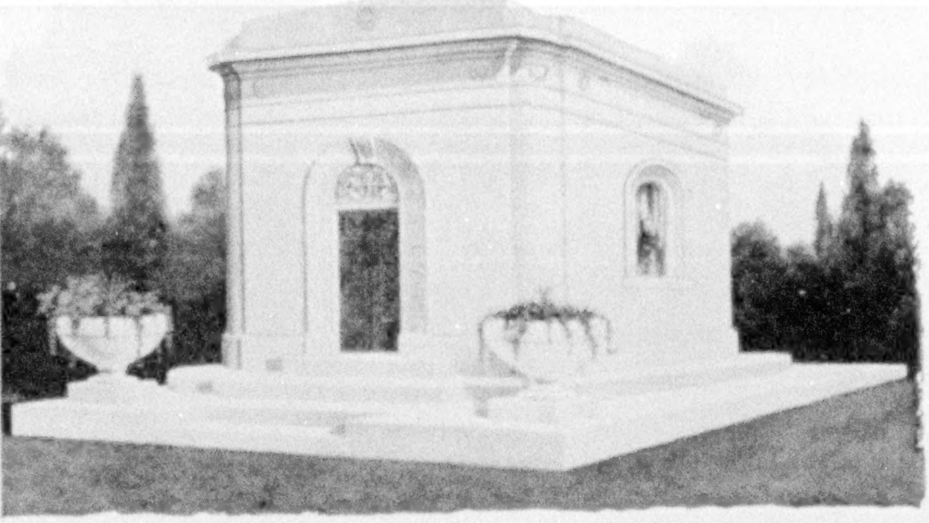
☐ Points of Interest. Name ....

☐ Agriculture and Live Stock. Address ....

☐ Mineral survey. City .... State ....



The vase accessory in the extended base of this Stony Creek tablet lends individuality to the memorial.



An original mausoleum design executed by Dodds' artists.

IMMORTALIZE by art's immortal praise the lives of those to whom you would pay tribute.

Dodds' granites, impervious to time and weather, permit Dodds' artists to perpetuate in enduring and artistic form the name you would immortalize.

A Guaranty Bond of Quality is furnished with all Dodds-made memorials.

Your copy of "Modern Memorial Art" sent if requested.

EXCLUSIVE PRODUCERS: *Milford Pink Granite* - *Victoria White Granite* - *Stony Creek Granite*
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814 PERSHING SQUARE BUILDING, NEW YORK CITY
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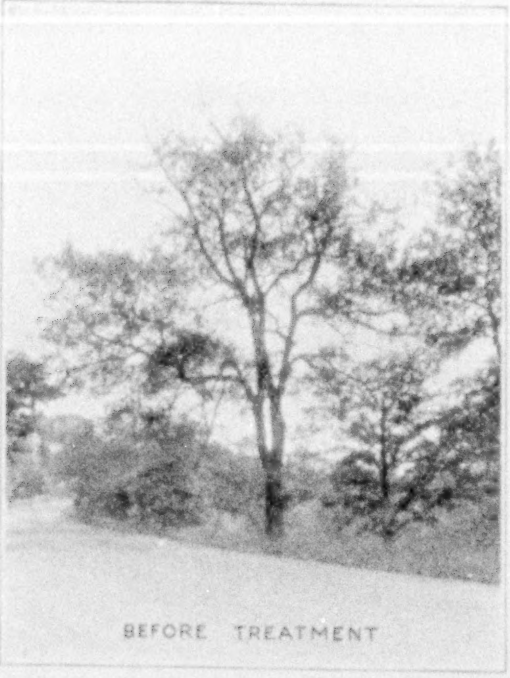
Niagara to the Sea

Cruise down the St. Lawrence to New France and the Saguenay, where the towering heights of Capes Trinity and Eternity outreach even the famous Rock of Gibraltar.

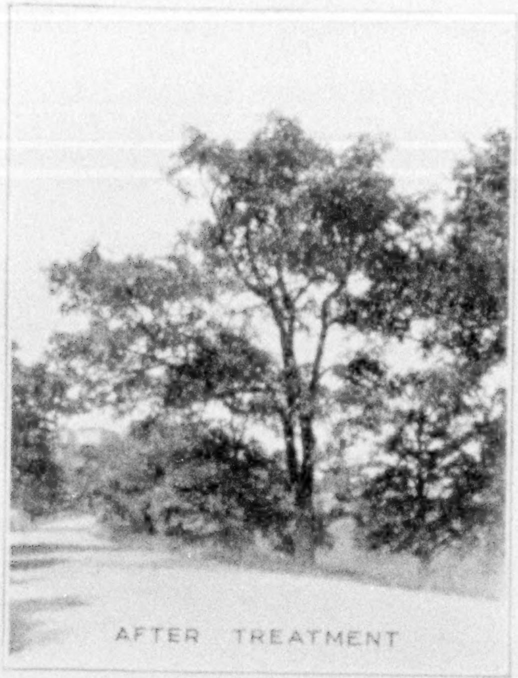
For booklets, rates and information, address the office nearest you. CANADA STEAMSHIP LINES, Ltd.: New York, *110 West 42nd St.;* Boston, *216 Old South Bldg.;* Philadelphia, *202 Liberty Bldg.;* Chicago, *112 West Adams St.;* Detroit, *312 Dime Bank Bldg.;* Cleveland, *Union Trust Bldg.;* Pittsburgh, *Union Trust Bldg.;* Cincinnati, *Dixie Terminal Arcade;* Rochester, *705 Temple Bldg.;* or C. C. BONTER, Passenger Traffic Manager, CANADA STEAMSHIP LINES, Ltd., 9 Victoria Square, Montreal, Canada.

CANADA STEAMSHIP LINES

Owning and operating the St. Lawrence River Route—"Niagara to the Sea". Northern Navigation Division—Great Lakes Service. Hotels—Manoir Richelieu and Hotel Tadousac on the Lower St. Lawrence.



June, 1925, before treatment. Tree in Central Park starving through neglect under semi-artificial conditions. Note thin foliage and dying top



June, 1926—same tree one year after treatment. Restored to new health and vigor through Davey methods of scientific feeding and pruning

Saving the starving trees of Central Park, New York

TO EXPLAIN away the obvious results of neglect and inefficiency, various fanciful and fallacious theories were advanced as to the reasons why the trees of Central Park are dying. In 1925 the Davey Company challenged these unwarranted claims, and made the positive assertion that the trees of Central Park are dying from neglect and starvation. To prove the truth of this assertion, the Davey Company offered to treat, at its own expense, 100 dying trees as a demonstration.

A careful survey by Davey Experts indicated that about 25% of the older trees of Central Park are too far gone to save, and another 25%, approximately, are border-line cases in advanced stages of decline, but with some reasonable chance of saving them by proper treatment. The other 50% were in varying conditions from fairly good to relatively poor.

The 100 trees selected for demonstration were taken from the second group of border-line cases, and the Davey Company staked its reputation on its ability to save a substantial portion of these dying trees. The treatment given was the result of John Davey's life experience and the quarter of a century experience of the whole Davey organization.

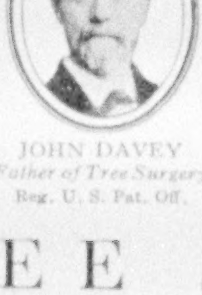
This treatment was a combination of practical common sense and scientific knowledge and experience. For exactly the same reason that a good farmer cultivates his fields and fertilizes his soil, the ground under these trees was thoroughly cultivated—adequate and appropriate fertilizers were used—the ground was prepared to receive both water and air, so vital to plant life. One of the important elements in this program was the use of Davey Tree Food to stimulate new growth quickly.

In addition to this, the trees were given expert scientific pruning to eliminate the dead and weak parts, and to establish a proper balance between a dying top and an impoverished root system. All the trees of Central Park are living under semi-artificial conditions, aggravated by neglect.

One year later, in June, 1926, photographs were again taken of the same 100 trees, and a thorough examination disclosed the fact that 90% of them showed definite improvement, a large proportion showing really marvelous improvement. The other 10% were holding their own.

All of this proves beyond the possibility of doubt or fallacious argument that most of the trees of Central Park can be saved, if the civic pride of New York forces a prompt and complete abandonment of the past policy of neglect.

All trees growing under lawn conditions are living under more or less artificial handicaps. Many of them are actually starving, slowly or rapidly. They need help. Are any of your trees starving? Look for danger signs in the slowly dying tops. The local Davey representative will be glad to examine your trees and report their condition to you without cost or obligation.



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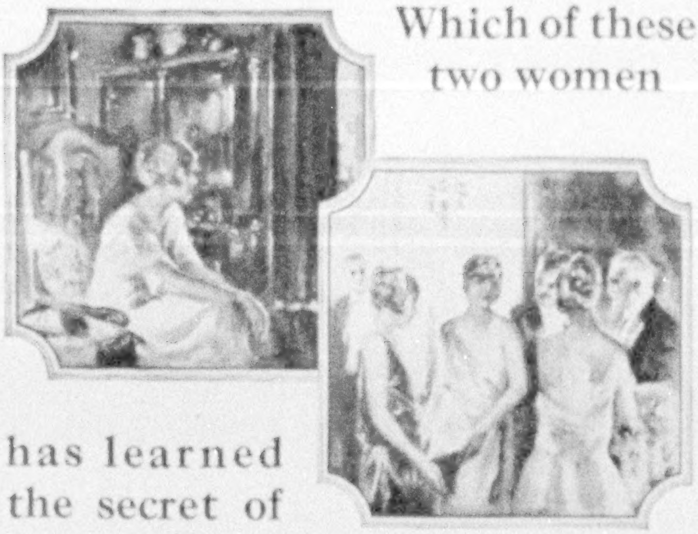

Which of these two women has learned the secret of Fifteen Minutes a Day?

TWO women live in neighboring homes. They are the same age. Their husbands' incomes are about equal. They *seem* to have the same chance of social success and happiness.

And yet, one of these women is seldom invited to go out. She belongs to no set or club or society. She is lonely all day long.

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Her secret is very simple. She has learned how to attract people. She has read many things. Her mind is keen and alert, and people feel instinctively that she is worth knowing.

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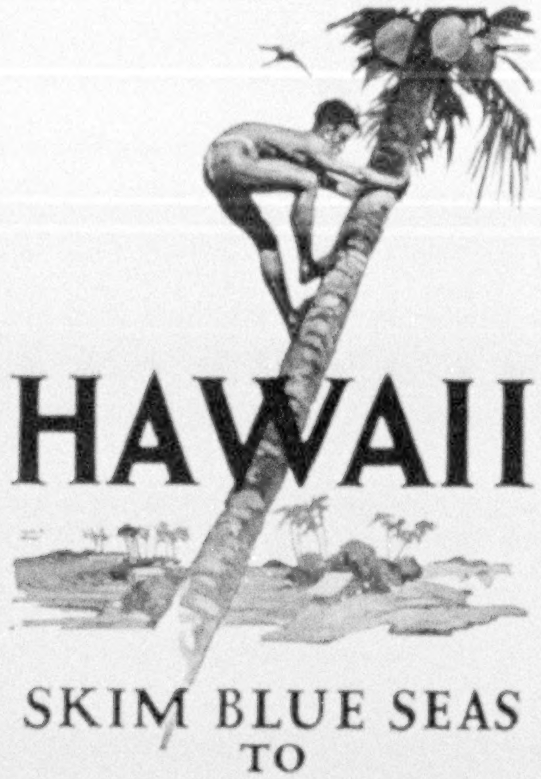

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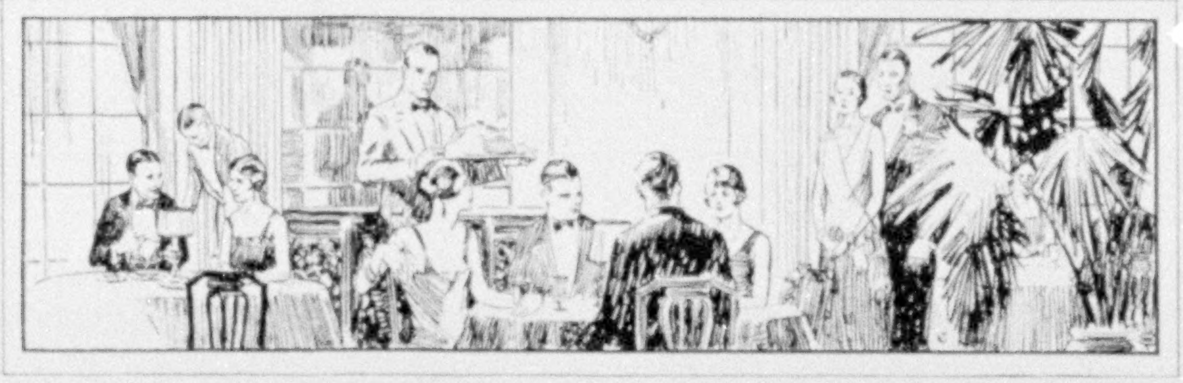

A corner in the dining saloon on the great MALOLO

WHEN Diamond Head looms tawny-hued in the sunshine above a sea swirling with color—the coast of California is only four and one-half days astern. A fairy vision comes out of the sea thirty-six hours sooner than it should be expected.

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The MALOLO is in effect a luxurious hotel, swept by gentle ocean breezes on a blue and lovely sea. Comfort—luxury—refinements found only in the most famous hotels—all are embodied in this dream ship, devoted solely to first-class passengers.

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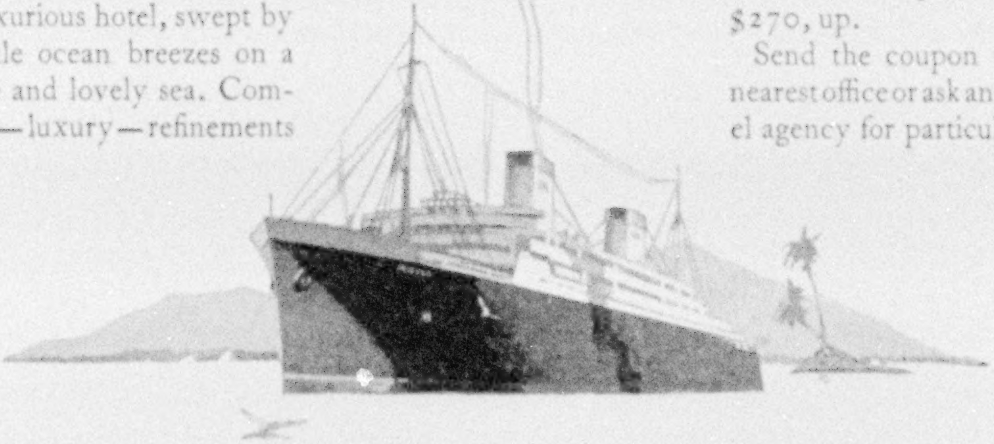

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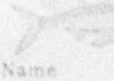
THE SHIPS THAT SERVE
hawaii



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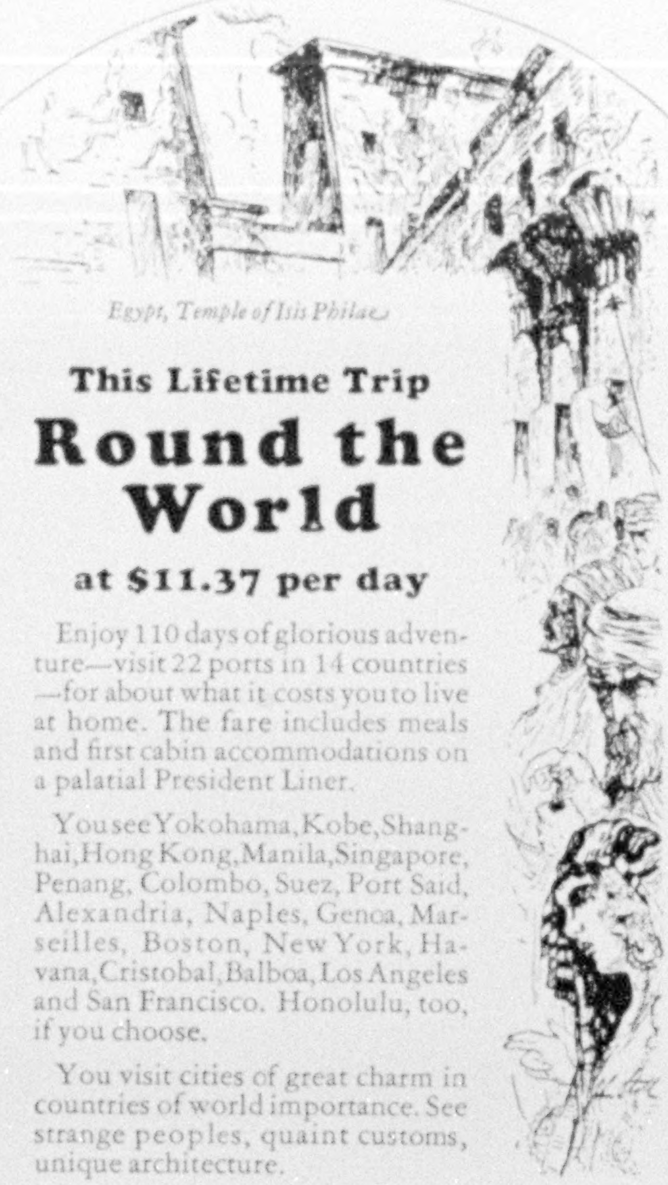

Egypt, Temple of Isis Philae

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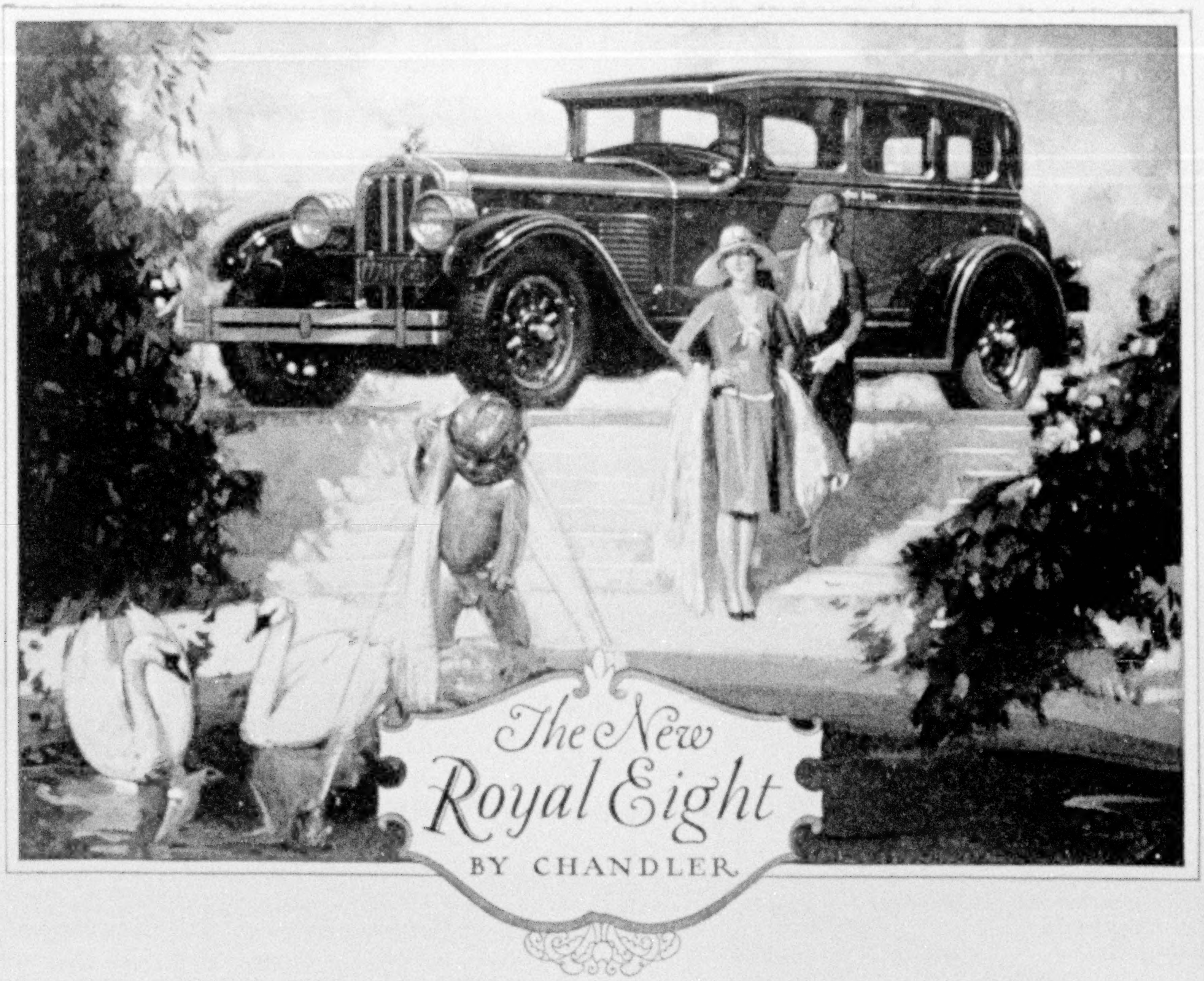

America goes Europe one better!

INSTEAD of America going to Europe, Europe now comes to *America* for ideas about motor cars. Within a few weeks of its first public showing, Chandler received orders by cable calling for a large number of these Royal Eights *to be shipped abroad!*

It is not to be wondered that automobile designers over there are now looking over here. In this new Royal Eight by Chandler, modern ideals of symmetry, and style, and comfort, and road action, all are advanced to a new glory of expression.

And Europe can well make a study of this eight-cylinder development of Chandler's Pikes Peak power principle. Marvelous results are obtained in smoothness and quietness—in *get-up-and-go* acceleration—in high gear hill-climbing. *Chandler certainly is a performing automobile!*

Sharing the distinction of the new Royal Eight is a resplendent new line of Chandler Sixes in three chassis sizes—cars that invite any comparison on any basis with anything in the entire six-cylinder field.

Eights and Sixes alike have the famous Chandler "One Shot" automatic chassis lubrication. The Sixes range from $945 to $1895, and the Royal Eights from $2195 to $2295, f. o. b. Factory. No wonder Chandler is riding the wave!

CHANDLER-CLEVELAND MOTORS CORPORATION · CLEVELAND

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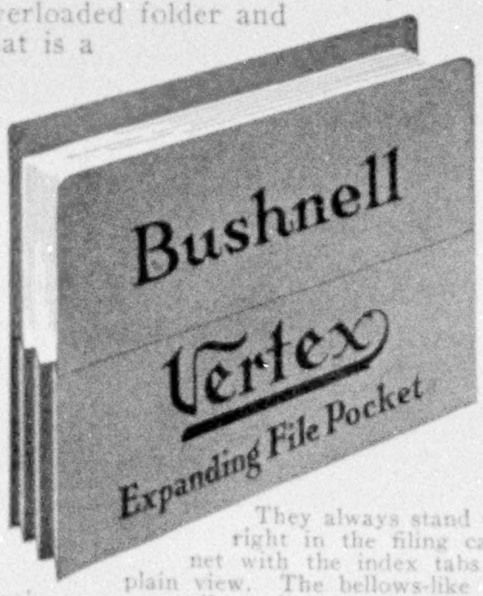
ROYAL EIGHTS · BIG SIXES · SPECIAL SIXES · STANDARD SIXES

Here comes the bride

very often means—"There goes my file clerk."

Could a strange clerk enter your filing department and find important papers instantly, as it is very often necessary to do? Would she be handicapped with bulging flat folders, with their hidden indexes and disarranged papers?

There is only one remedy for an overloaded folder and that is a



They always stand upright in the filing cabinet with the index tabs in plain view. The bellows-like expansion cares equally well for the minimum and maximum number of letters. Made of "Paperoid," the pure red-rope stock, to outlast twenty ordinary flat folders.

Prepare for mid-year transfer time. Send coupon for sample file pocket. No charge or obligation.

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Please send me for trial in my files a free sample of Bushnell's Paperoid "VERTEX" File Pocket, as described in June National Geographic.

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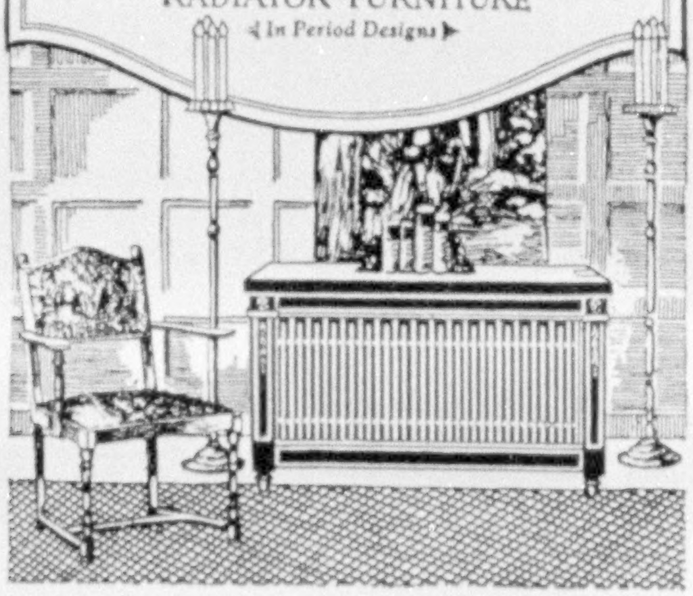
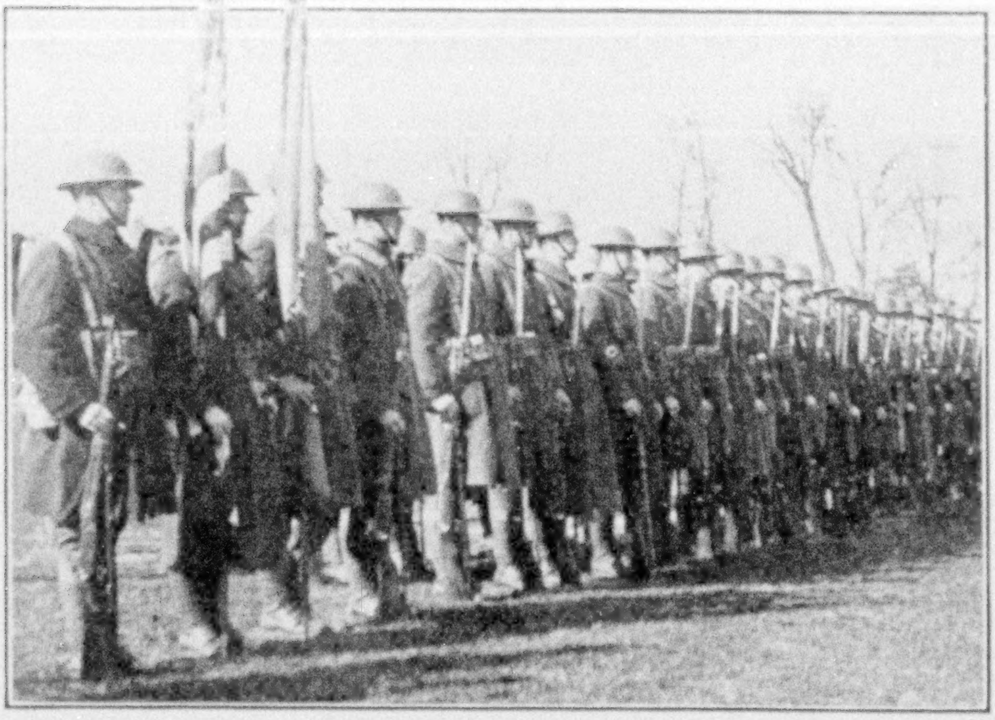


Companee-'ten-*shun!*



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WHEN Uncle Sam mustered his greatest Army and Navy to fight overseas, he arranged to supply everyone in Service with life insurance at less than its cost to the Government—a lower rate than could be offered by any life insurance company in America. The Government had no taxes to pay and made no charge for overhead expenses.

More than $39,000,000,000 of insurance was taken by 4,500,000 Service men and women.

The policies were originally issued on the yearly renewable term plan. After the war, holders were invited to convert them into policies on a level premium, legal reserve basis such as is employed by America's large life insurance companies.

But, unfortunately, many policies were allowed to lapse. And now the officials at Washington, gratefully remembering the way the Government was supported in time of need, offer veterans a final chance to restore protection to their families with life insurance at rates below actual cost. All Service men and women who lapsed their term policies may have their insurance reinstated by the payment of one month's back premium when accompanied by a certificate of good health which any physician may give. Or they may now take out smaller policies at the same special rates. But—the necessary formalities must be carried through before July 2, 1927.

For information and necessary blanks send to any local headquarters of the United States Veterans' Bureau, or of The American Legion, or of the Red Cross, or to the national headquarters of any one of these organizations at Washington, D. C.

THE LIGHT THAT NEVER FAILS

One of the most common misconceptions in the public mind regarding life insurance is that lapsed policies are a source of profit to insurance companies and therefore are desired by them. As a matter of fact, lapsed policies mean loss to both policyholders and companies. Worst of all they often spell domestic tragedy.

Because of temporary financial pressure, men sometimes stop paying premiums hoping that a little later they may take out new policies—even though they realize that at an older age they will have to pay higher rates, *if*, by good fortune, they are able to pass again the necessary physical examinations.

Life insurance policies are not merely sound investments; in the majority of cases they provide the surest form of protection for American families. Once a man or woman has taken a life insurance policy every possible precaution should be used to keep it in force at its full value.

The Metropolitan Life Insurance Company spends a great deal of time and effort each year urging policyholders whose misfortune may have caused them to lapse their contracts to apply for reinstatement. Also, we are glad to cooperate with Washington in urging Service men and women to get their Government insurance reinstated before it is too late.

The 3,500,000 eligibles for this bargain insurance are in a fortunate position. We hope they will take advantage of their extraordinary opportunity.

HALEY FISKE, *President.*

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A rich feast in nuts and chocolate

If you prefer *nut centers* and *nut combinations,* you will thank us for directing you to the Fussy Package.

There are no soft centers in the Fussy Package. It is a special assortment for those who like chocolates with hard or "chewey" centers. It is a good example of how Whitman's Chocolates are selected and packed to suit individual tastes. Thousands already know the Fussy Chocolates as their first favorites. Hundreds of thousands more no doubt will welcome them.

Sold only in those selected stores that combine selling fine candy with giving good service.

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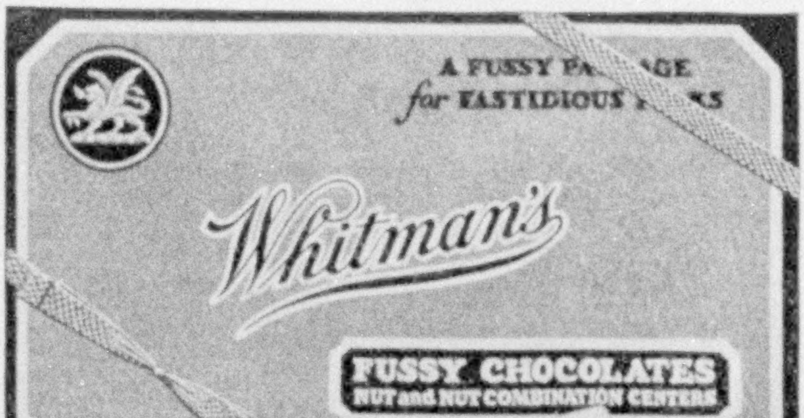

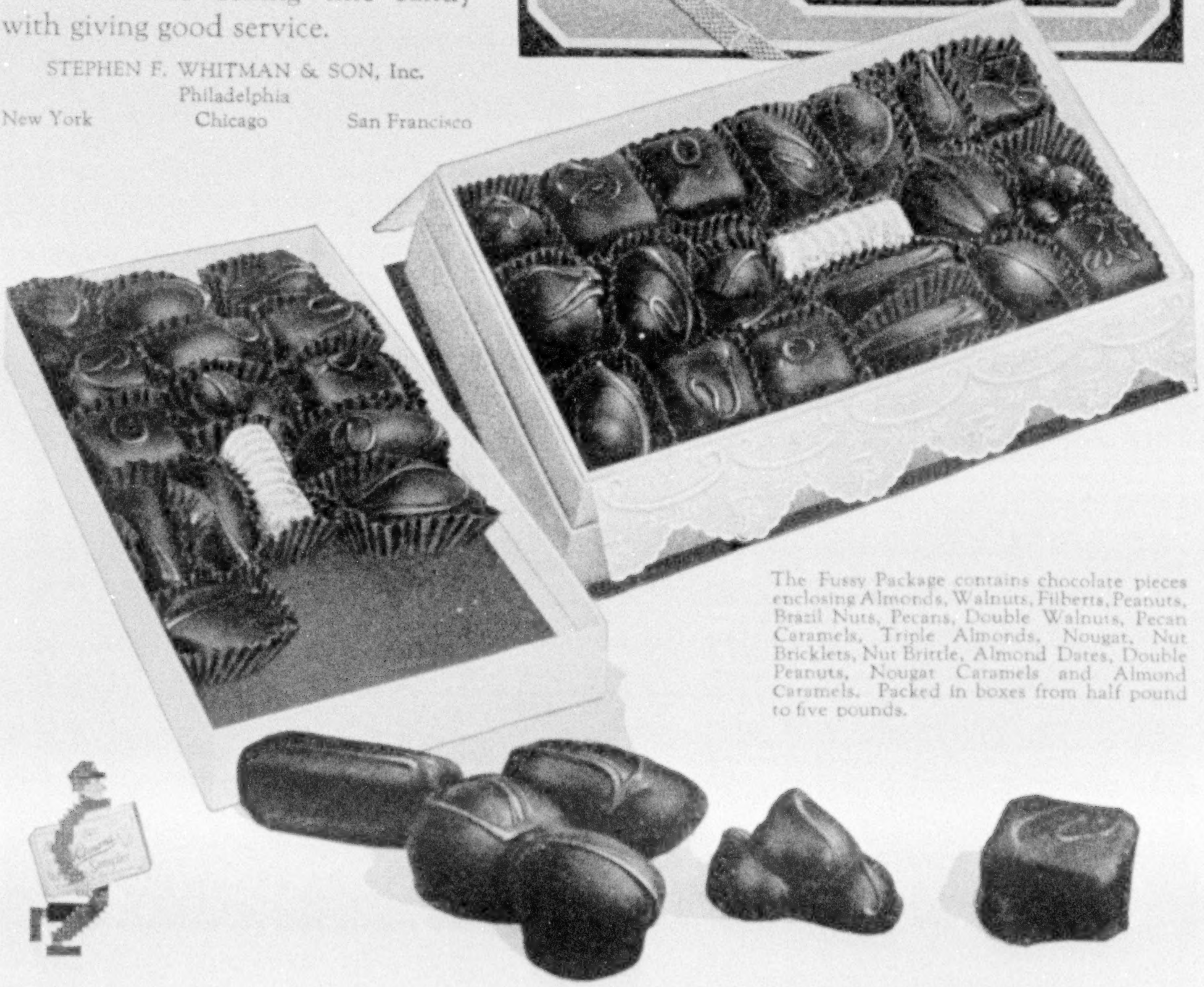

The Fussy Package contains chocolate pieces enclosing Almonds, Walnuts, Filberts, Peanuts, Brazil Nuts, Pecans, Double Walnuts, Pecan Caramels, Triple Almonds, Nougat, Nut Bricklets, Nut Brittle, Almond Dates, Double Peanuts, Nougat Caramels and Almond Caramels. Packed in boxes from half pound to five pounds.

Vol. LI, No. 6 WASHINGTON June, 1927

THE NATIONAL GEOGRAPHIC MAGAZINE

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HO FOR THE SOOCHOW HO

By Mabel Craft Deering

MOST of the good ships of the P. and O. Line—those mystic initials which stood in the olden days for Peculiar Oriental Luxury—that is, most of the good ships of that line which were not torpedoed or mined during the World War, had been doing some trooping. That was why the *Dilwara*, rather small for P. and O. traditions, was delayed on a certain recent trip from Shanghai to Singapore, for she had made a little detour into Shantung Province, place of dreadful debate, after 500 mules for India.

Apparently it was a case of "First, catch your mule," as the little boat was quite belated; but it all turned out for the best, for had it not been for the mules that did not wish to be caught, we might never have known the delights of the Soochow Ho.

Now, the river at Shanghai is full of houseboats—so full that you could cross dry-shod, like the Israelites of old—but few there be among foreigners who ever inquire where these houseboats go or whether one could be acquired for a song in the proper key. Suffice it to say that prior to the present condition of civil war houseboats could be acquired, not, perhaps, for a song, but for a few notes, and thereby several days of delightful adventure might be secured.

GETTING SERVANTS FOR A HOUSEBOAT

Our boat had been named the *Nirvana* by some one with imagination, and never did three people surrender themselves with more abandon to the process of Celestial absorption.

"Catchee 'one-piece' cook, 'one-piece' coolie?" asked our friend's Number One boy, lent for the occasion. "Missy want amah?" (Chinese nurse).

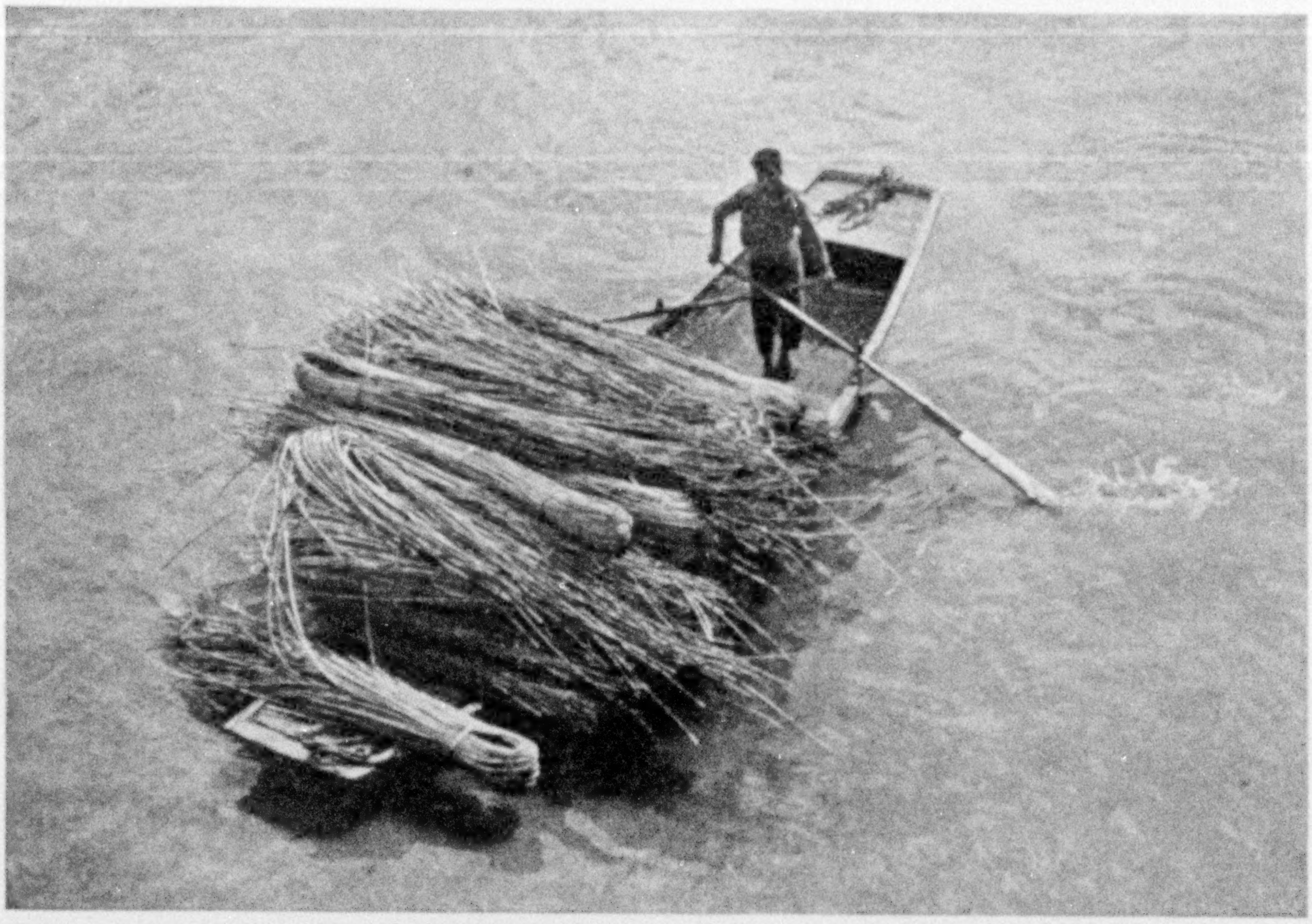
Missy did not want amah, having just had a disastrous experience with one, but she did want one-piece cook and one-piece coolie and food for five days.

No trouble at all to secure a most admirable cook and a most painstaking coolie in this land of Housekeeper's Delight. The Number One boy just picked them like ripe apples from a tree. And such food! Legs of frogs and breasts of guineas and pheasants and caviar and sweet potatoes and pancakes Suzette and wonderful things in bottles on the ice. And all for a very moderate sum, less than the hotel charges for the same period, and doubtless plenty left over for the Number One boy himself.

"BECAUSE HIS MOTHER LOVED HIM"

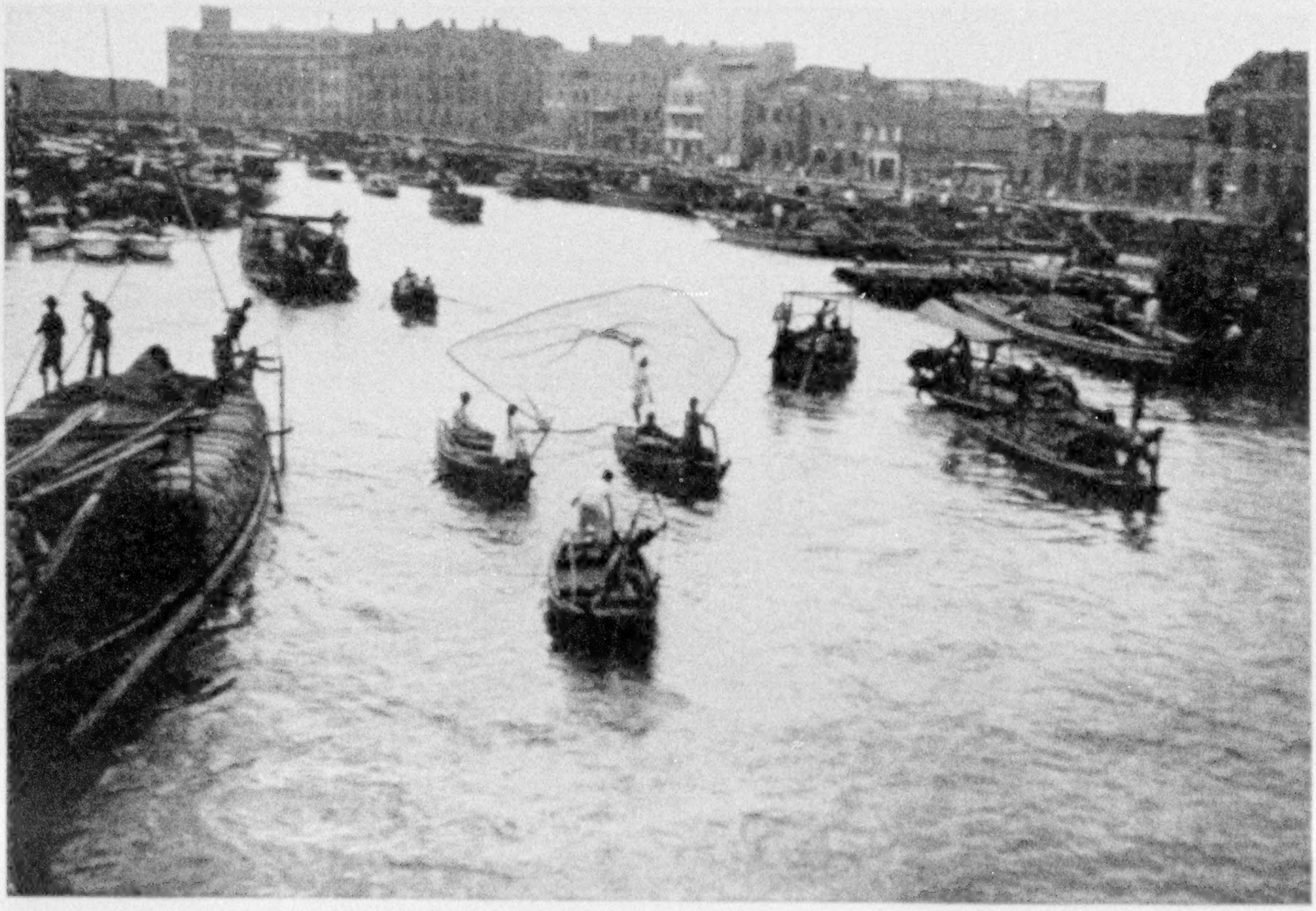
By way of crew the *Nirvana* boasted two—the *laota*, or captain, and a sailor. The latter was an ugly creature, with cross-eyes and something terrible the matter with his nose and a silver ring in one ear. He looked as if he might have descended from Captain Kidd by a circuitous Cathay route. I was delighted with his earring; it was so in character and made him look like a lopsided Pirate of Penzance.

I could not see how he had escaped having it torn out in the brawls which had disfigured his countenance, and one day, after we had become rather close friends, I asked him through the interpreter, who was the bond between us, how he came



CANE FOR WICKER CHAIRS IN WHICH THE READER MAY EVENTUALLY SIT

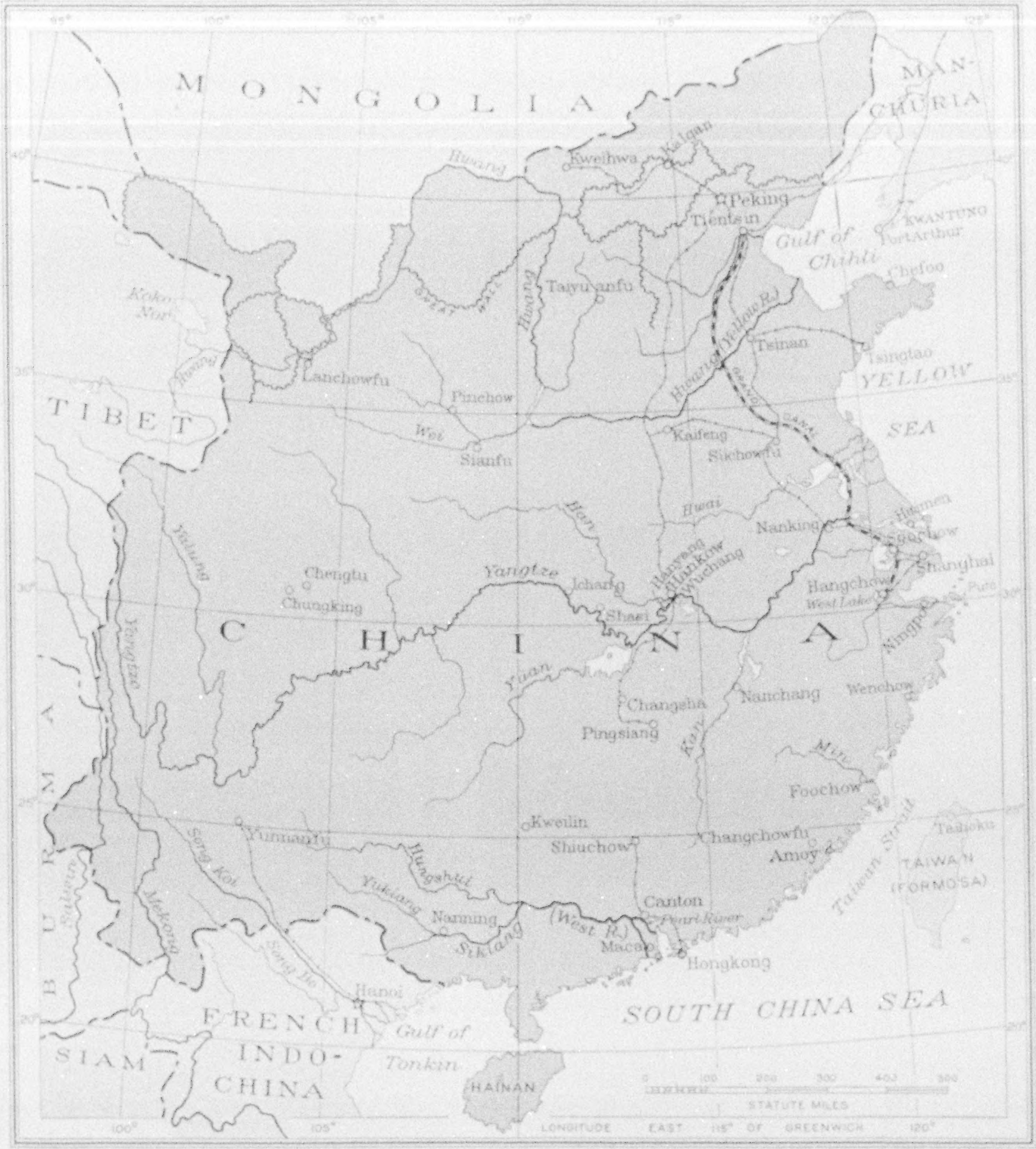
This boatman pursues his work in the throbbing harbor of Shanghai, which has an estimated population of 1,500,000 and is the chief port of the Province of Kiangsu, the most densely populated political unit in the world.



Photographs by Robert F. Fitch

ANTICIPATING A HEAVY CATCH

In spite of the crowded boat population of Soochow Creek, which flows into the Whangpoo River at Shanghai, an abundance of fish is taken in these large nets.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Yalung
Yuan
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Taiwan Strait
Yunnanfu
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Song Koi
Yukiang
Nanning
Sikiang
West R.
Canton
Pearl River
Macao
Hongkong
Salwin
Mekong
Song Bo
Hanoi
FRENCH INDO-CHINA
SIAM
Gulf of Tonkin
HAINAN
SOUTH CHINA SEA
STATUTE MILES
0 100 200 300 400 500
LONGITUDE EAST 115° OF GREENWICH
95° 100° 105° 110° 115° 120° 125°
40° 35° 30° 25° 20°

Drawn by A. H. Bumstead

A SKETCH MAP OF CHINA

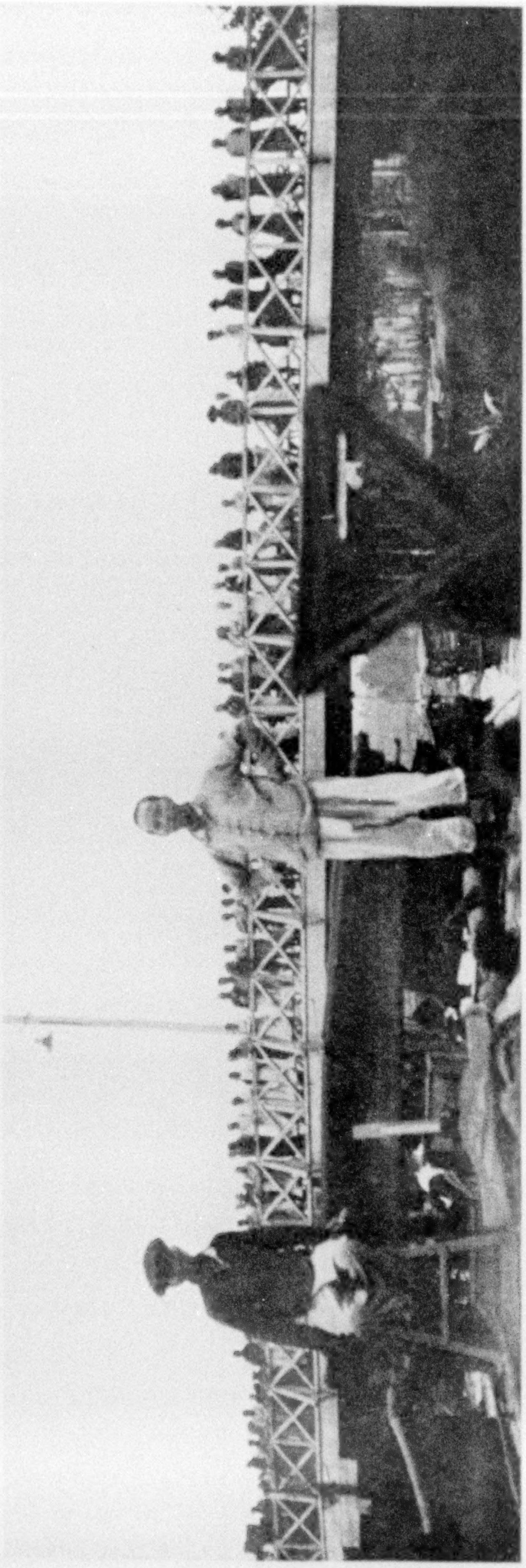
The author's houseboat journey began at Shanghai. The trip was made on the Soochow Creek to Soochow, and thence by the Grand Canal to Hangchow.

to wear an earring—if all sailors wore them—and he answered with a wry and toothless smile that he wore it because his mother loved him!

The earring had been there since babyhood, and the poor, ragged fellow, through all vicissitudes, had never even pawned it, and still wore it in token of his mother's love!

I had always heard that the population of China increased by leaps and bounds, but I had only a faint conception of the truth. The crew of two with which we left Shanghai had increased to ten before Soochow was reached—a population quintupled in a night. They slept somewhere beneath us, in a dark place without light or air, and must have "found" themselves in rice, for we furnished none, unless the Number One boy provided from his surplus.

We suspected that the captain and the Number One boy were in partnership in a passenger-carrying venture, and that each



Photograph by Mabel Craft Deering

A SHANGHAI CROWD FROM THE VANTAGE POINT OF A BRIDGE WATCHES THE DEPARTURE OF THE "NIRVANA"

The *laota*, or captain, and Number One boy successfully freed the author's houseboat from the tangle in the harbor, eased it into line behind the tug, and kept it clear of the bumboats and other river craft that swarmed around by the thousands (see text, page 629).

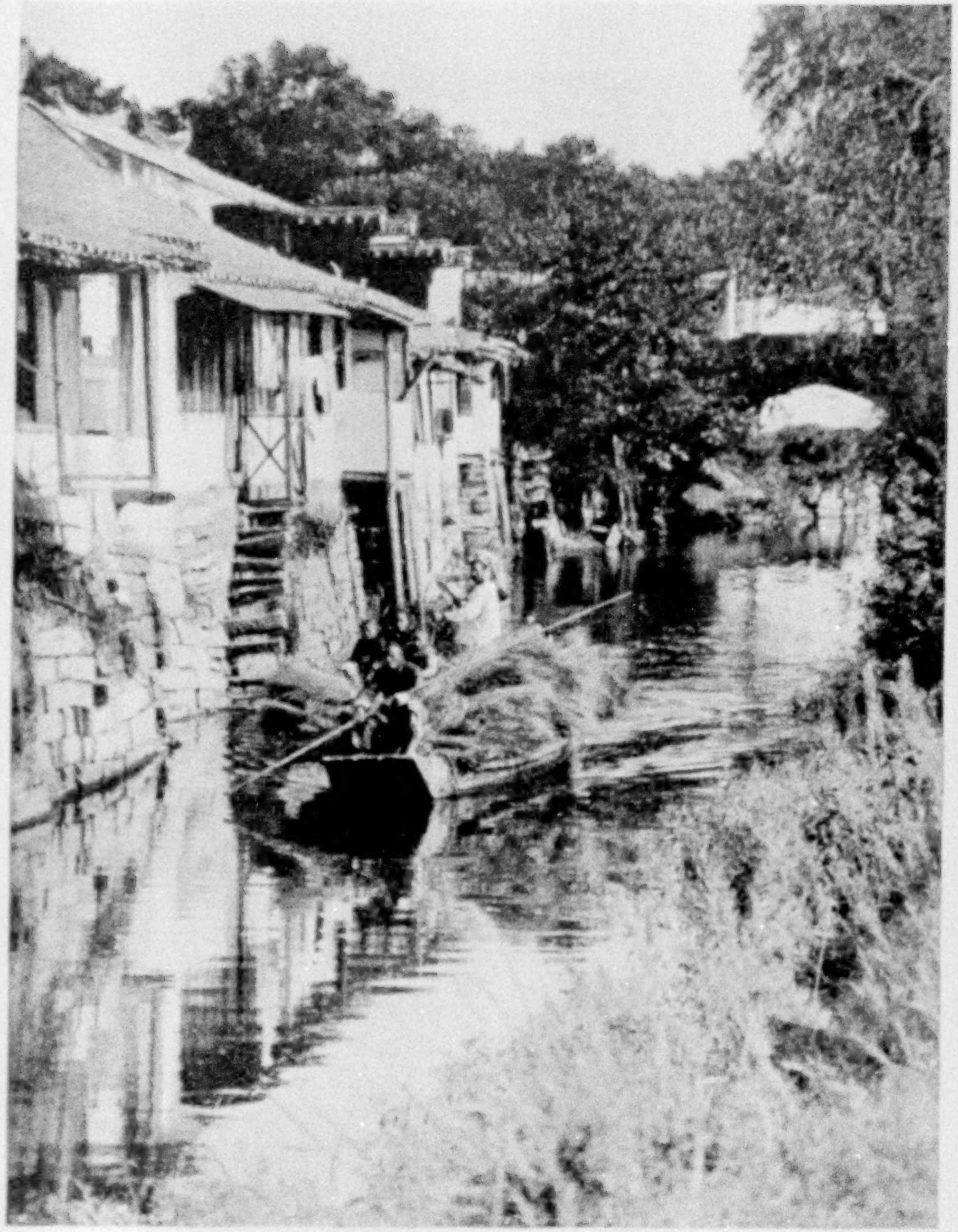
man added to our crew paid for the privilege of the ride. It did not inconvenience us, except that it gave us a creepy feeling at night to know that our boat, the doors of which did not lock, fairly crawled with strangers, and that one was so hopelessly outnumbered. But one gets used to that minority feeling in China.

"WALKING THE PLANK" TO ONE'S HOUSEBOAT

To get back to the time when we had only two in the crew and two in the galley! The crowded quay at Shanghai is a tangle of boats. Ours was five or six boats from shore and, after climbing an iron railing, we walked a plank for the first time in our lives, steadied by a stout bamboo pole held by the captain and the ear-ringed sailor. One was glad not to fall in, for the river at Shanghai is very, very dirty. However, there was scarcely space to fall.

Which was our tow and which our string of houseboats was a puzzle too much for any of us. We had been told that only five houseboats were permitted to each tug, but here we were in a welter of five hundred, and how to get out? But we did and with only a half hour or so's delay.

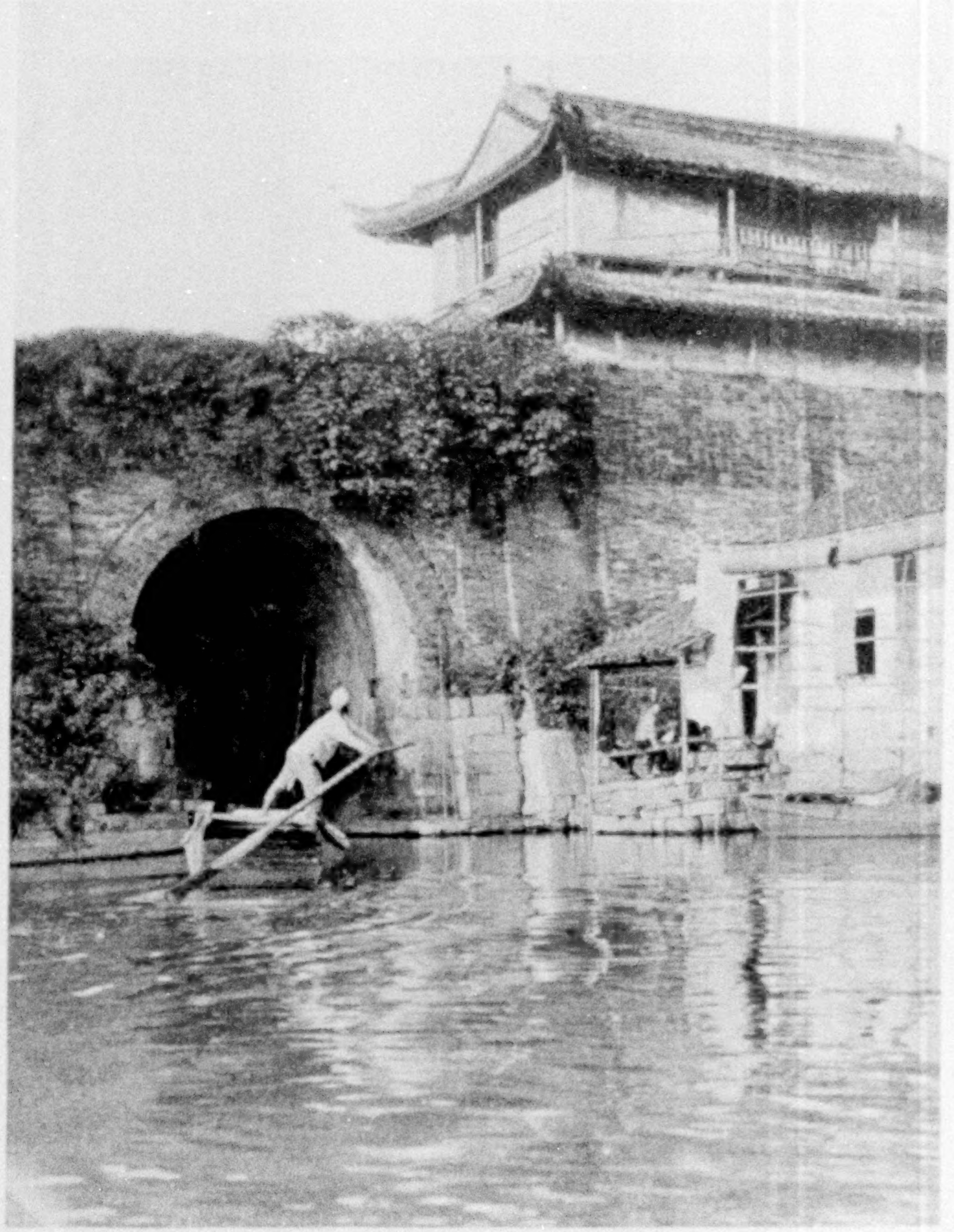
At 4 o'clock the tow miraculously straightened and the boats fell into line. Coolies worked and sweated with hawsers and lines and poles. Great cannon balls of coiled rope dropped between the stern of one boat and the bow of the next to prevent chafing, and we found ourselves gliding slowly but smoothly upstream in the wake of a



Photographs by Charles H. Kragh

POLING HIS LOAD THROUGH THE BACK WATERS OF SOOCHOW

To be perfectly happy, the Chinese say, one should be born in Soochow. The canal highways, lined in places with grassy banks and swaying trees, are not the least of the Beautiful City's charms in the eyes of its inhabitants, who boast that, while "Heaven is above, below are Hangchow and Soochow."



THE WATERY SOO IS BEST EXPLORED BY CANAL

The rectangular wall enclosing the city is surrounded by a canal, or moat, is pierced by gates, and arched by bridges. Formerly guard towers defended the water gates in the wall, by which the capital was entered, and saw to the collection of toll money, which was put into a bag swung down from above on a pole.

Photograph by Maynard Owen Williams

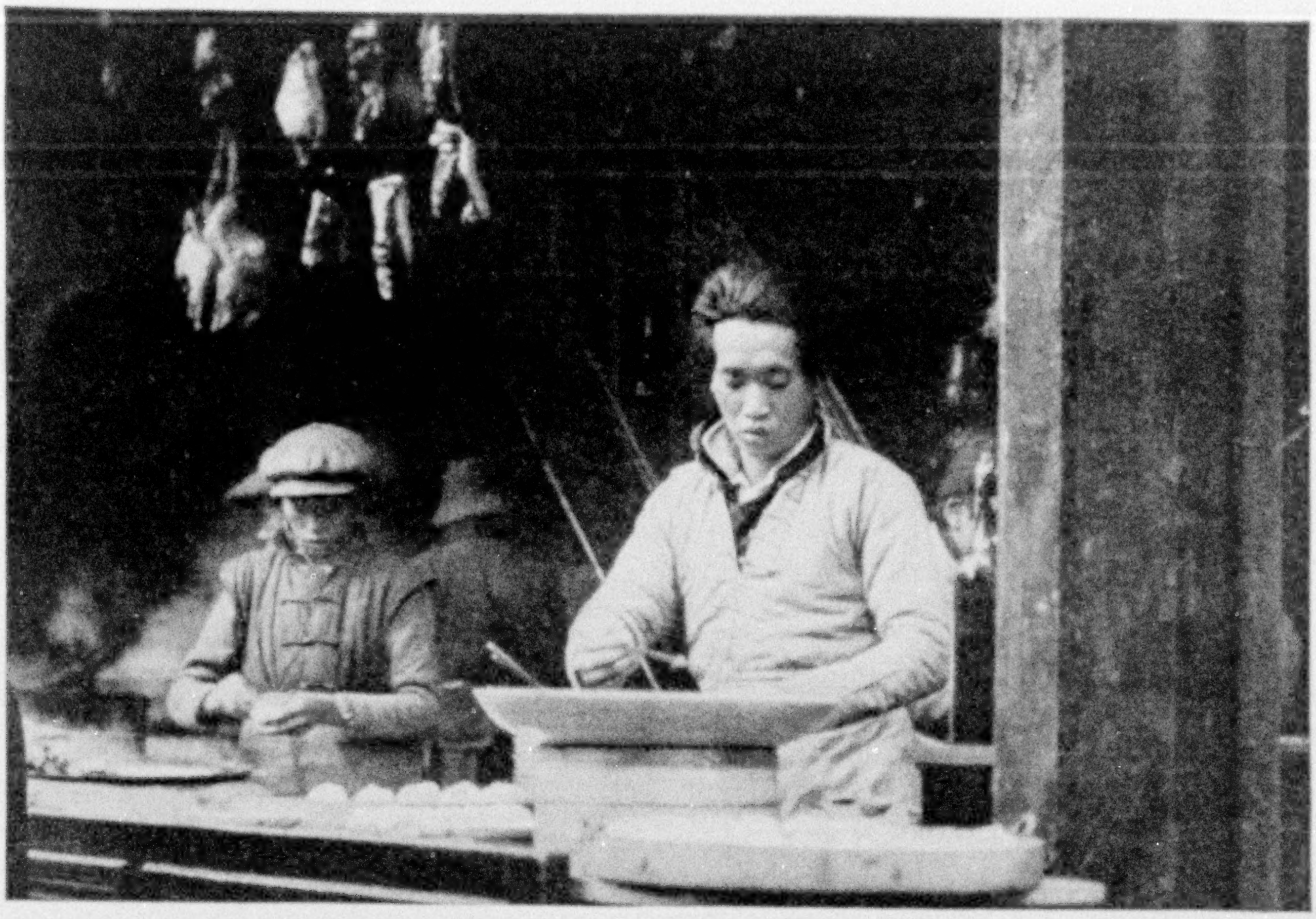
PLYING THEIR CHOPSTICKS WITH MORE ZEST THAN THEY PLY THEIR OARS

After putting every ounce of energy into their arduous task, Chinese boatmen relish their frugal meal of rice, which is sometimes varied with a few bits of meat or fish and ginger.

Photograph by Mabel Craft Deering

THE CLOSED CHAIRS FOR THE AUTHOR'S PARTY IN SOOCHOW

The "one-piece" donkey with bells was the mount used by the captain of the houseboat, who brought up the rear of the procession (see text, page 641).



Photograph by Charles H. Kragh

COOKING BUNS OUTSIDE A RESTAURANT IN SOOCHOW

Chinese hotel boat—a houseboat which is not rented to one well-to-do family, but which takes single passengers for a consideration and boards and lodges them during the trip.

This boat was so close to ours that, sitting at ease on our upper deck, we necessarily became familiar with many intimate domestic details; but I doubt if we were any more interested in them and their doings than they were in us when teatime came and our tea, with its delightful French pastry accompaniment, was served on our canopied deck.

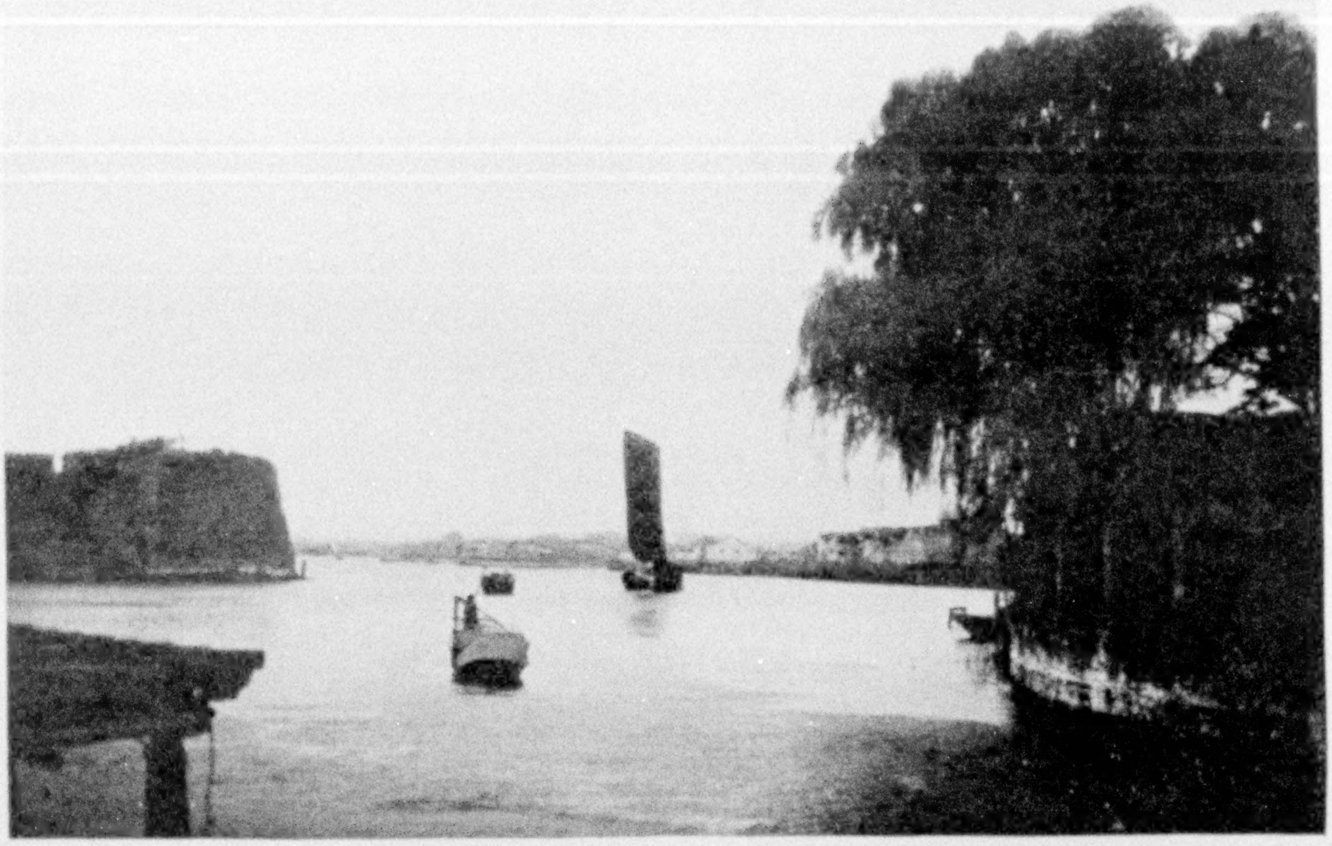
COOK BOATS CONSTANTLY PLY THE TEEMING WATERS

The river is very wide at Shanghai, and harbor craft literally by the thousands swarmed about us. A bronzed Buttercup, her bumboat piled high with peanuts and ling nuts, sang a strange little song at our side and sold her wares to people a little less poor than herself.

China is certainly the home of the delicatessen idea. The cramped house space, teeming with children who did not have the grace or the luck to die, has made cooking or a near approach to the family table well-nigh impossible, and everywhere savory little messes cooked over charcoal are sold at an incredible cheapness, and small bowls of steaming delicacies are always being carried through the streets for morning or evening consumption. The river is no exception. Cook boats are everywhere and the principal object of sale is always food.

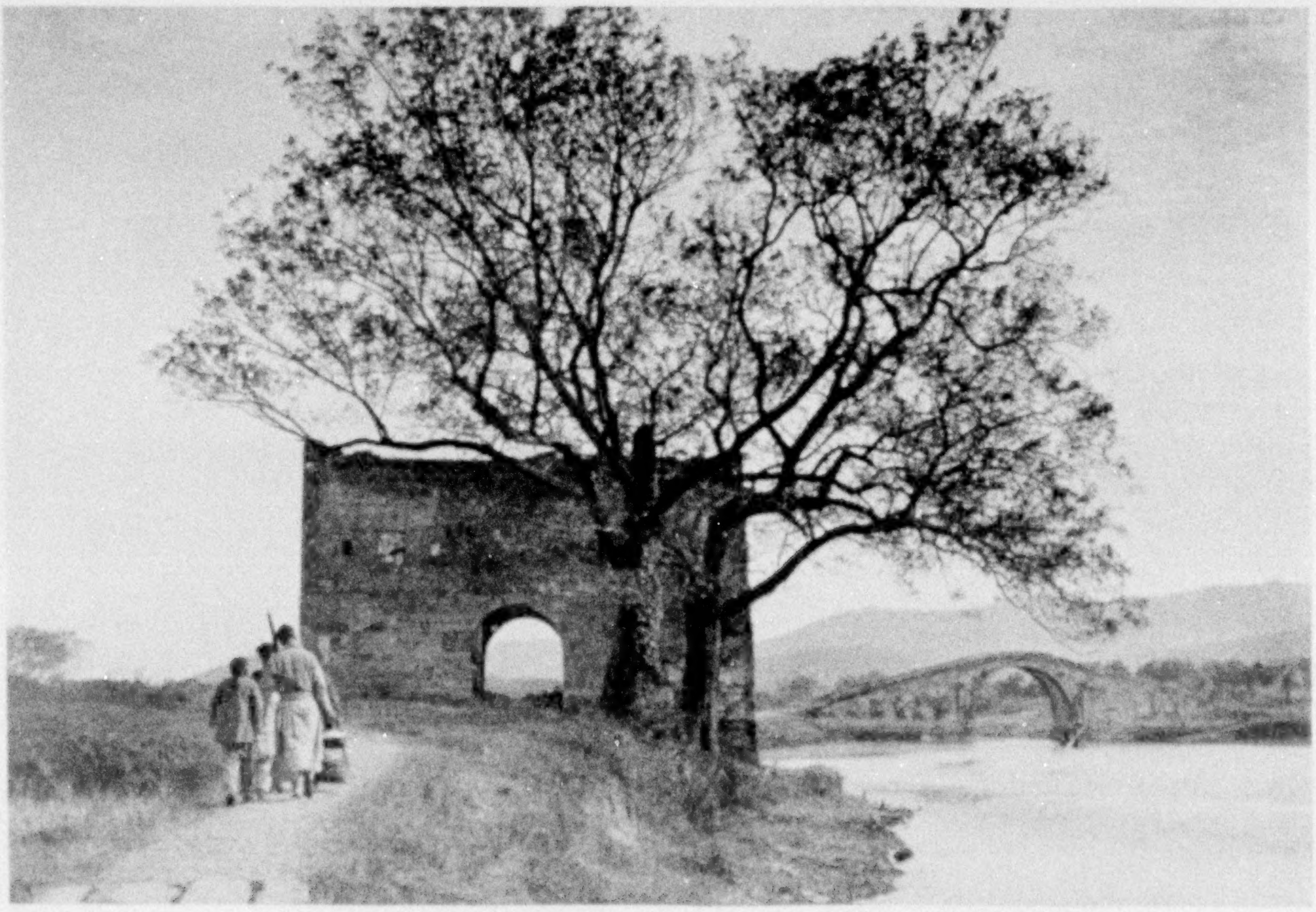
A barge loaded with wool passed us, with one leaking bale. Little handfuls of the precious commodity began to dot the crowded waters, and instantly half a dozen small boats, poled by women and girls, screaming with excitement, darted from under our prow, shot skillfully between the houseboats, and gave chase to the desirable bits. Small children with long picks or skillets like butterfly nets on poles fished the treasure-trove from the water, swearing volubly as other boats and other treasure-seekers intercepted a desirable morsel.

The water carefully squeezed out, the flotsam and jetsam were laid out to dry on the little decks. Each of these women and children had risked life in this frenzied dart among the stream craft after a few cents' worth of wool.



Photograph by Mabel Craft Deering

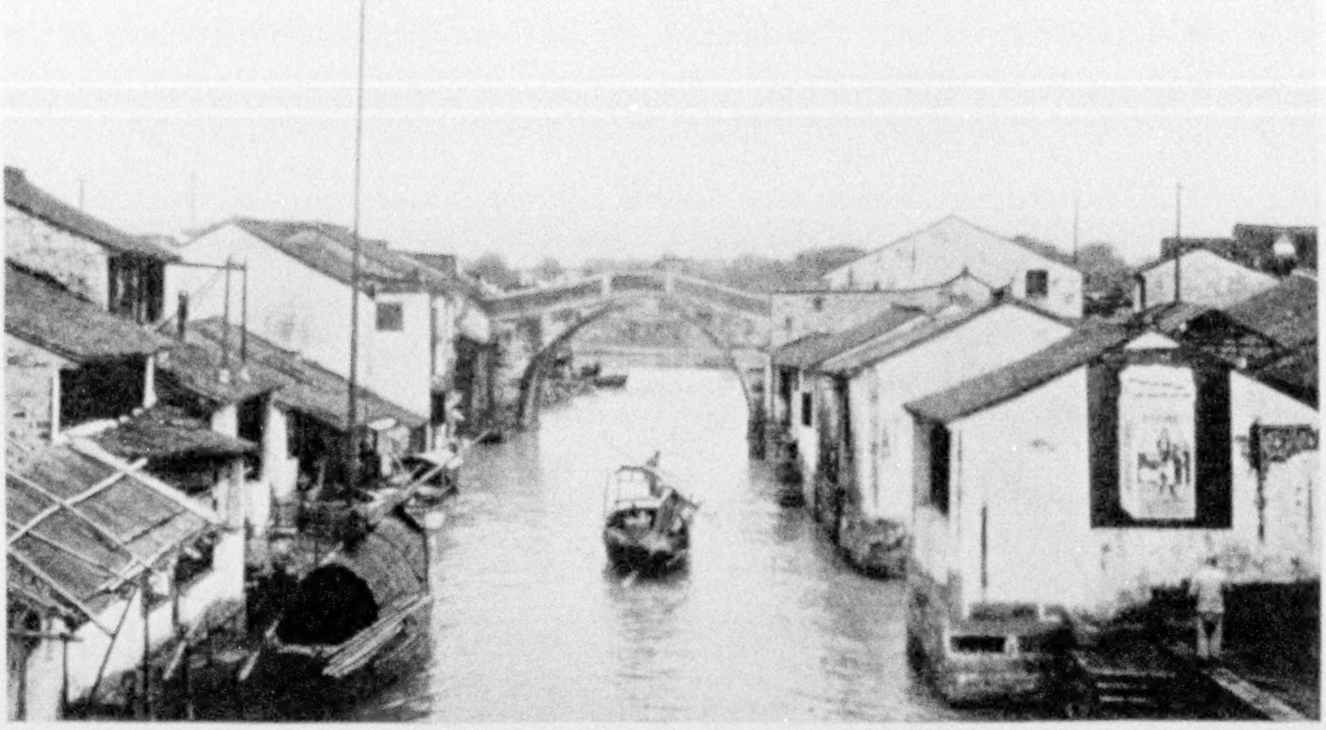
OUTSIDE AND UNDERNEATH THE THOUSAND-YEAR-OLD WALLS OF SOOCHOW



Photograph by Charles H. Kragh

WHERE THE TONGUES OF HISTORY ARE STILLED

This blockhouse on the outskirts of a village near Soochow is a relic of the Taipings, who, during their 14-year rebellion against the Manchu dynasty, captured the city in 1860. When the famous British officer, Charles George ("Chinese") Gordon, invested it in 1863 he found it a mass of ruins.



Photograph by Mabel Craft Deering

ONE OF THE VENICELIKE CANAL STREETS OF SOOCHOW

Photograph by Charles H. Kragh

"WHERE THE JUNK SAILS LIFT" ALONG A CREEK NEAR SOOCHOW

The former capital of the sixth-century Kingdom of Wu lies on the Grand Canal, and is crisscrossed practically every quarter of a mile by other canals, which lead out into the heart of the fertile garden region in the lake district and to the hundreds of market towns and villages within a 30-mile radius.

Photograph by Charles H. Kragh

WAYS THAT ARE NARROW AND FAR FROM STRAIGHT

In and out of the wall through heavy, nail-studded gates (see text, page 643) wind throngs of pedestrians, sedan chairs, and donkeys, for the thoroughfares of the city proper are so narrow that a wheeled vehicle of any size cannot pass.

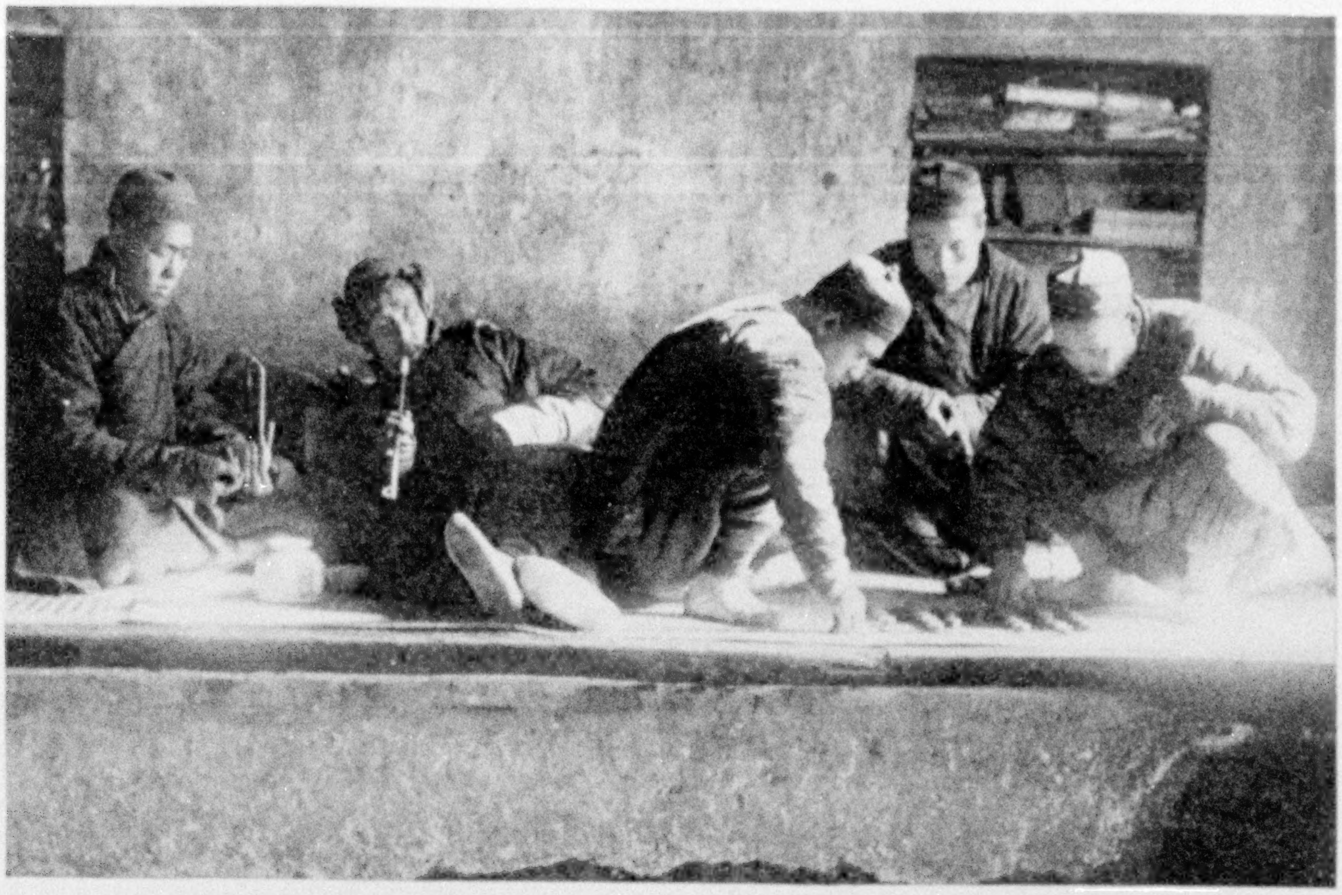
A baby, of two, or three, or four, often showed a shaven crown on the deck; but the fact that she is several times a mother does not exempt a woman from taking her trick at the oar in China, and one wonders how long a vacation she gets when the baby actually arrives.

So far as the appearance of these women was concerned, one could scarcely tell them from the men. Dirty, ragged, disheveled, trousered, practically their only distinguishing mark was a cloth which almost always covered their frowsy heads, and if one looked closely one could see a silver bangle, a ring, though it must cruelly blister the hand that grasps the oar, or a jade hairpin, to proclaim the eternal feminine love of ornament, pushing its way through this life of cruel toil.

As soon as we had passed the first few bridges, we began to meet the stately junks coming down under full, picturesquely patched sails. Their easier locomotion gave crew and passengers more time to gaze and to perform various domestic duties on deck. Women were washing vegetables in the dirty river water or stitching diligently on garments of Peking blue. Always there was a hobbled chicken or duck and almost always a mongrel *ku* to bark his warning at night. Usually there was a clump of Chinese lilies growing in a blue bowl.

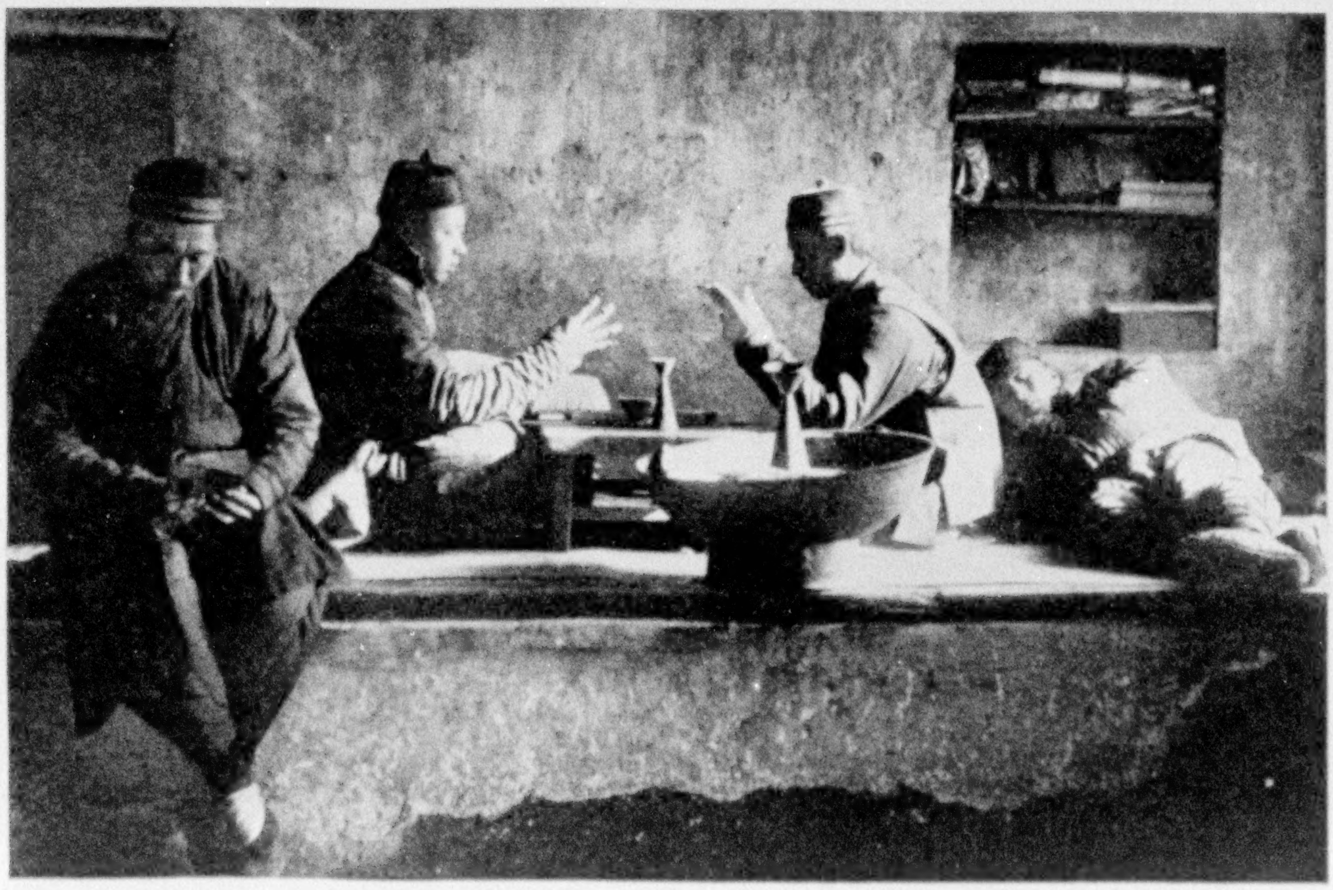
As twilight began to fall, we commenced to pass between long lines of up-river boats, not rich enough to be towed,

Presently water space was not at quite such a premium, and we began to meet large boats, shaped like Noah's arks, swinging downstream. They were sagging with vegetables strange to our eyes—great Brobdingnagian things in green and white, like a Bakst stage setting. They were going with the current, but were hastened in their progress by a strange-looking bent oar which resembled the winning half of a wishbone. The oar was usually operated by three willing workers, one of them almost always a tireless woman.



GAMES OF SKILL AND CHANCE FILL HOURS OF LEISURE

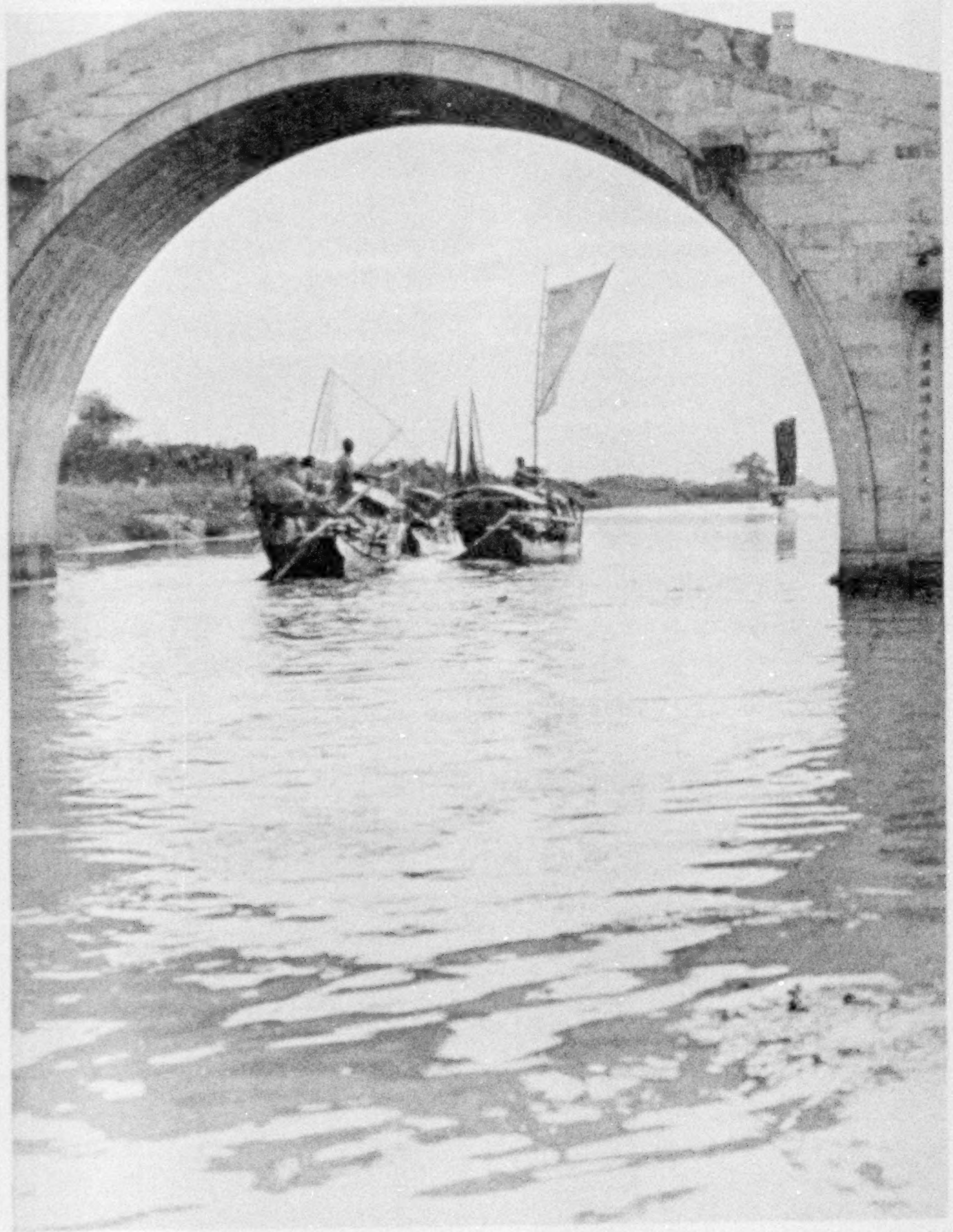
Along with the Romans, Greeks, Persians, Scythians, Babylonians, Jews, and Egyptians, the Chinese have been credited with the invention of the game of chess. According to one tradition, it was devised in 174 B. C. by a mandarin named Han-Sing as an amusement for his soldiers while in winter quarters.

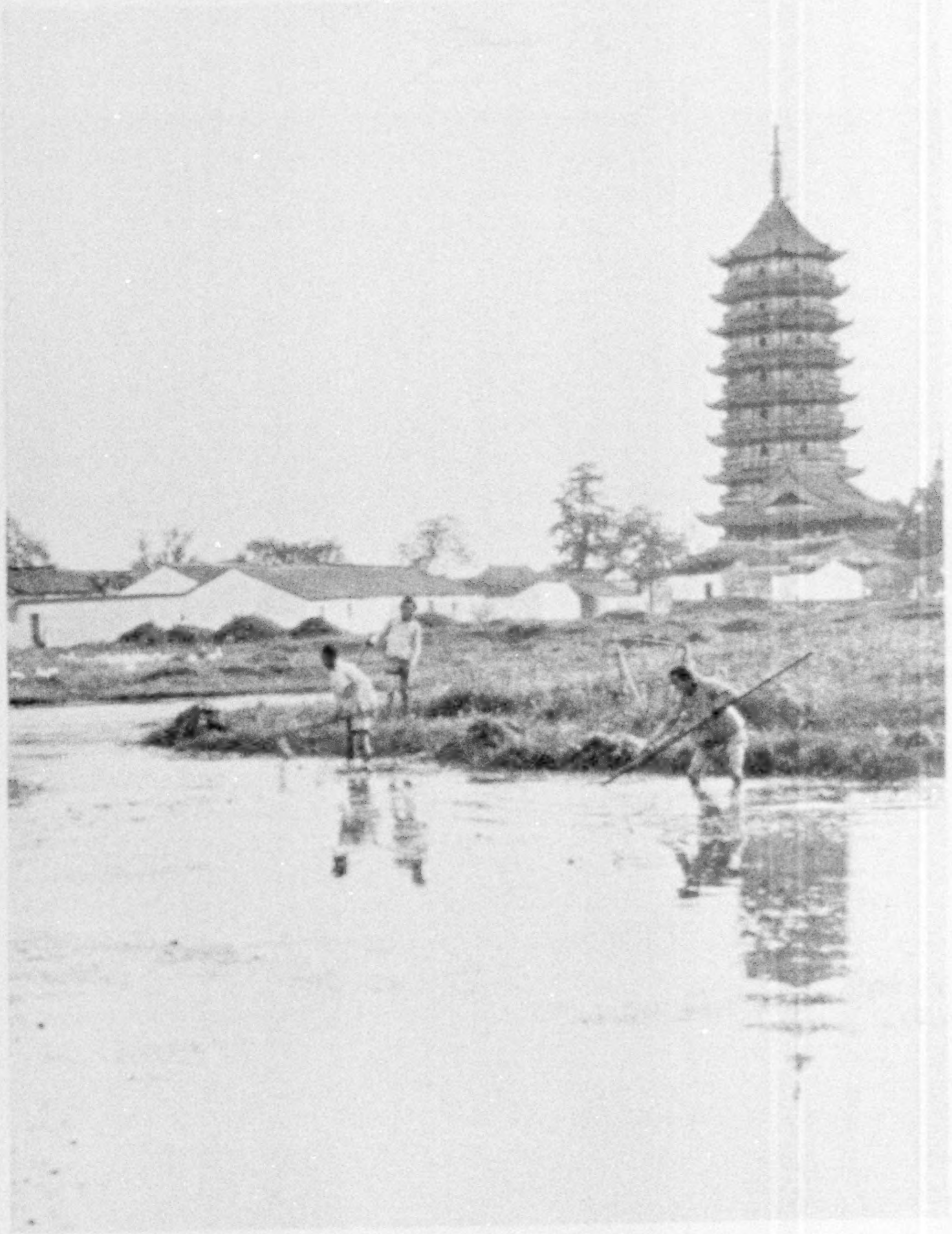


Photographs by A. Segers

CHINESE FARMERS ENJOYING THEIR WINTER VACATION

When there are no fields to be tilled or crops to be tended, the Chinese agriculturists sleep, smoke, talk, play games, gamble, or drink warm gin. On the wall of the room many small black spots can be seen; they are bugs which have been killed. Reversing the Occidental practice, in this betting "finger" game which the two men are playing, it is the loser who drinks; the winner's reward lies in the fact that he remains sober.





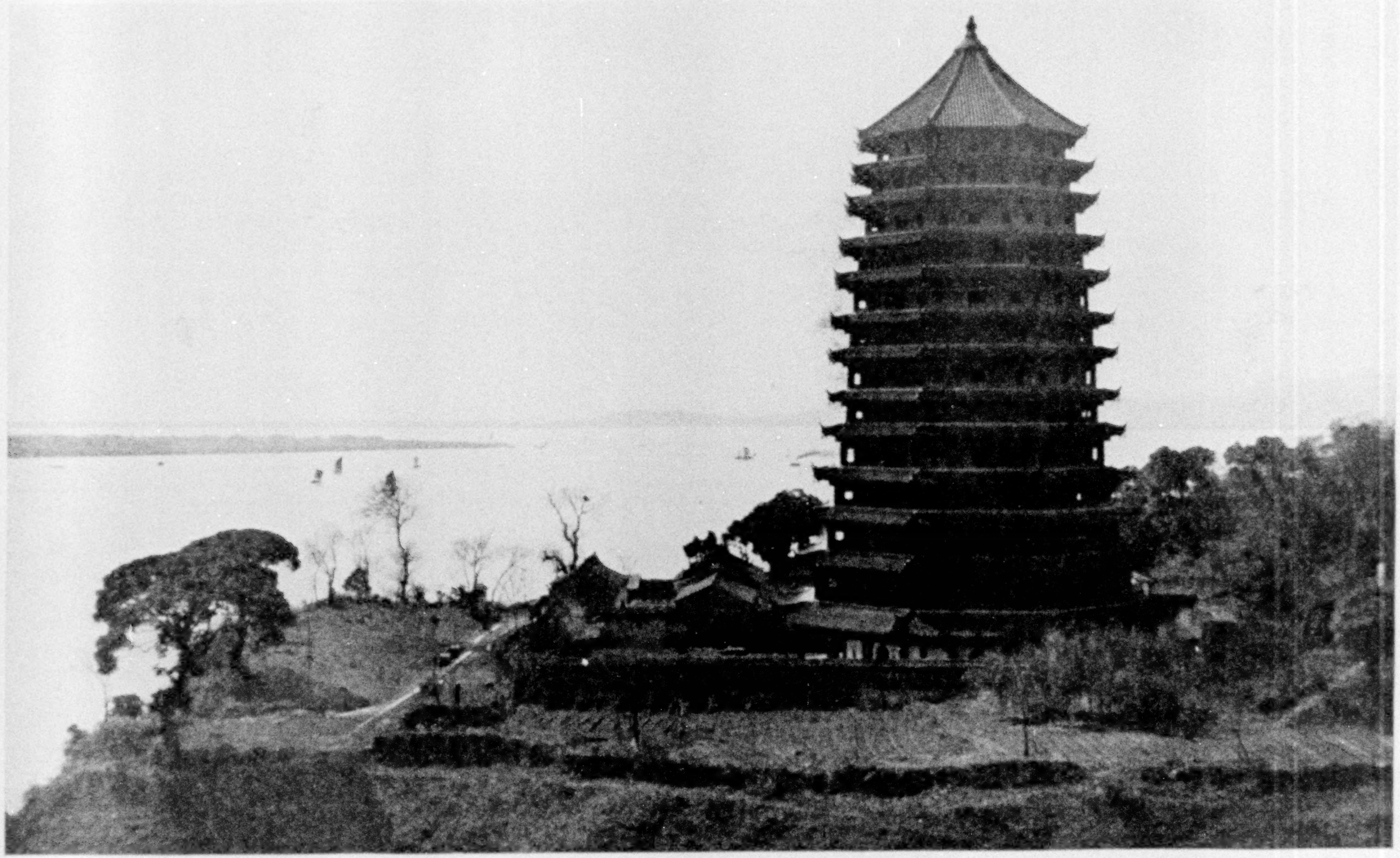
Photographs by Charles H. Kragh

SAILING THROUGH A HIGH ARCH BRIDGE AT SOOCHOW

Streets alternate with canals, and at the intersections rise these curved bridges, very beautiful in form and having from five to fifty steps, which enable the gondolalike craft to pass beneath them (see text, page 642). The buildings emerge from the water, like those in Venice, and along some of the narrower waterways the occupants of the houses on opposite sides extend planks from window to window and thus exchange visits.

THE GREAT PAGODA IS THE GLORY OF SOOCHOW

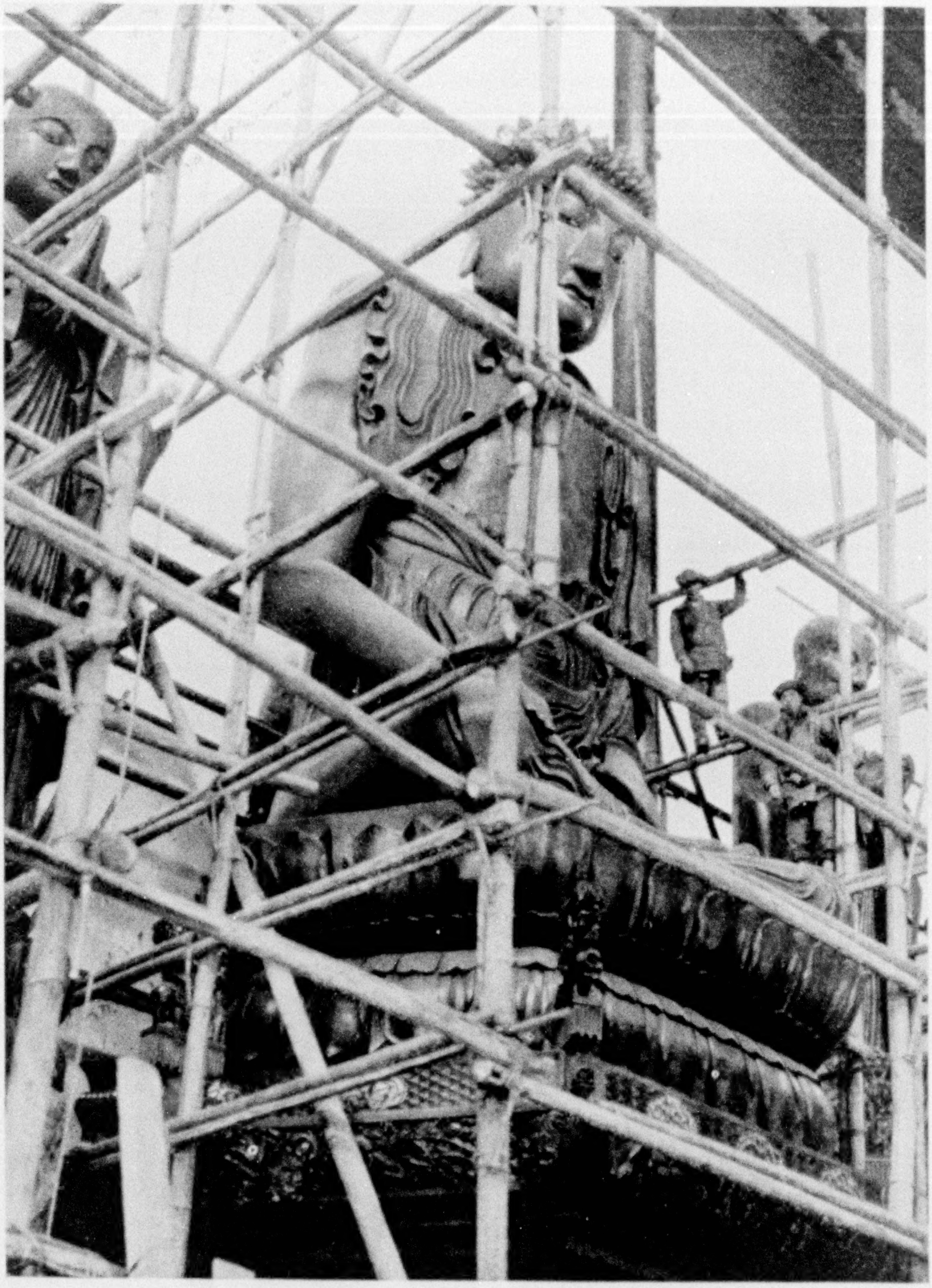
This is a pagoda within a pagoda, for inside the outer walls are others that extend to the top of the tower. The ninth story of the 250-foot structure affords a long-range view not only of the city, but of the surrounding plains, with their numerous lakes and canals, and of the distant mountains to the west. Each of the stories has a balcony and niches filled with stone images.



Photograph by Charles H. Kragh

THE SIX-HARMONIES PAGODA PROTECTS HANGCHOW FROM DESTRUCTIVE TIDES

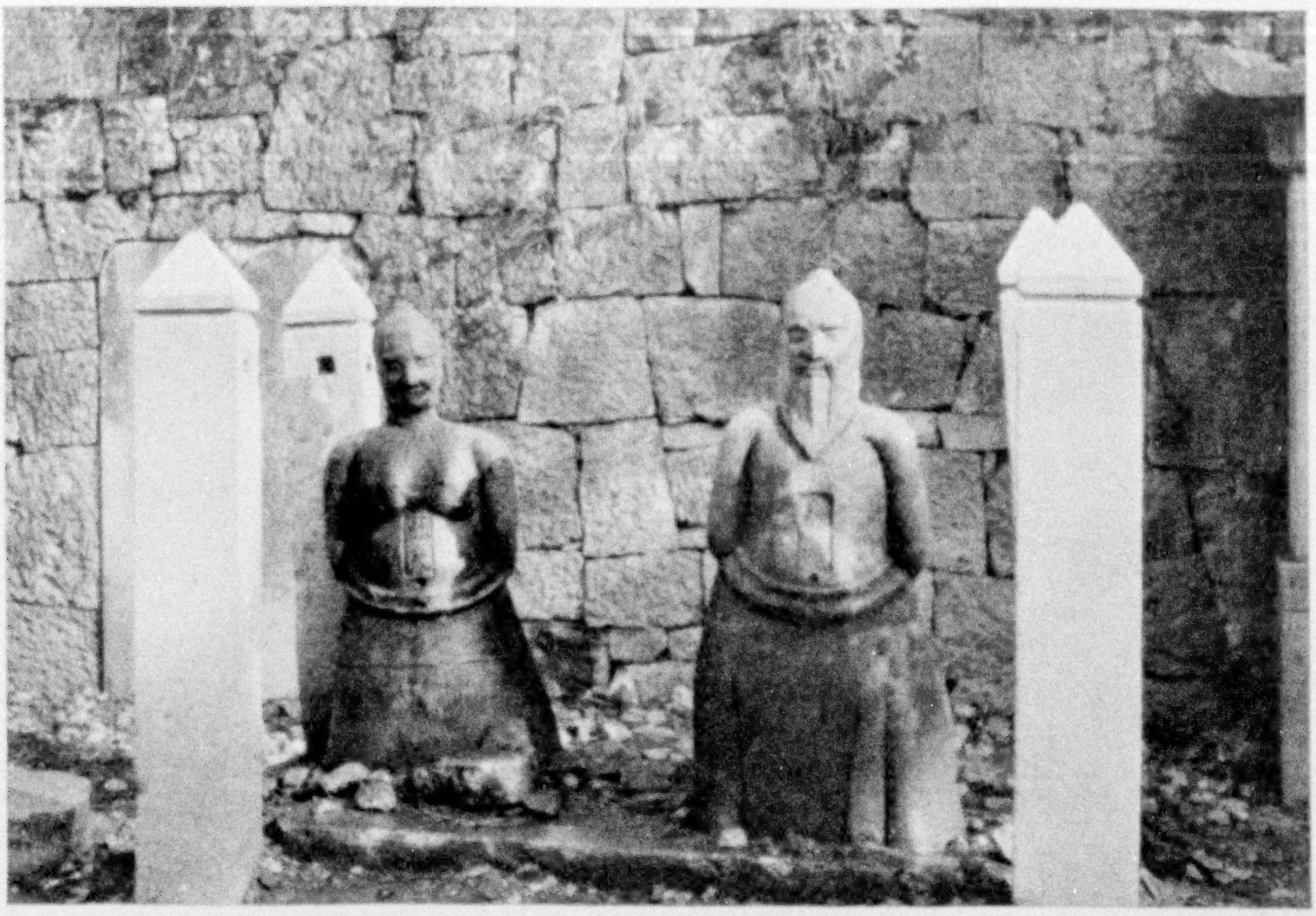
This fine structure of Ningpo brick is 13 stories high and measures 334 feet to the top of the "button." It caps Moon-girdle Hill and overlooks the Tsientang River. The first tower on this site was destroyed by highwaymen in 1122, and the second by the Taipings in 1862. The new structure dates from 1894.



Photograph by Maynard Owen Williams

EVEN A GOD NEEDS A NEW COMPLEXION ONCE IN A WHILE

Hangchow was one of the earliest centers of Buddhist faith in China, and hundreds of pilgrims crowd the Grand Canal at certain times of the year on their way to the great monasteries of the city, near West Lake (see, also, page 644). On the eighth day of the fourth month the pious buy or catch a snake, frog, bird, or some other living thing, and set it free in that portion of the lake known as the Inner Lake. This act brings them special merit in the next world.



Photograph by Maynard Owen Williams

PACIFISTS OF THE TWELFTH CENTURY

The Chinese of Hangchow visit unspeakable indignities upon these iron statues of two peace-at-any-price traitors who opposed the struggles of Yo Fei, the faithful general of the Sung dynasty in the south, with the tribe of the Golden Horde in the north.

tied up for the night on the banks. Everybody was eating a supper of rice, but no one was too busy to point at us with succulent, dripping chopsticks. These boats seemed more prosperous. The decks were being swabbed; boy babies wore large, loose silver rings about their necks, and little bright queues braided in red were standing out in a Sis Hopkins halo around their chubby brown faces.

It darkened. At 8 o'clock our dinner was served in the cozy cabin, with red curtains drawn, bright lights, fresh damask, and sparkling silver and glass. The little (one-piece) cook was a success from soup to dessert. So was the Number One boy, in his long silk coat, serving deftly and quickly and with as much ceremony as if he had a butler's pantry at his back as big as the whole boat.

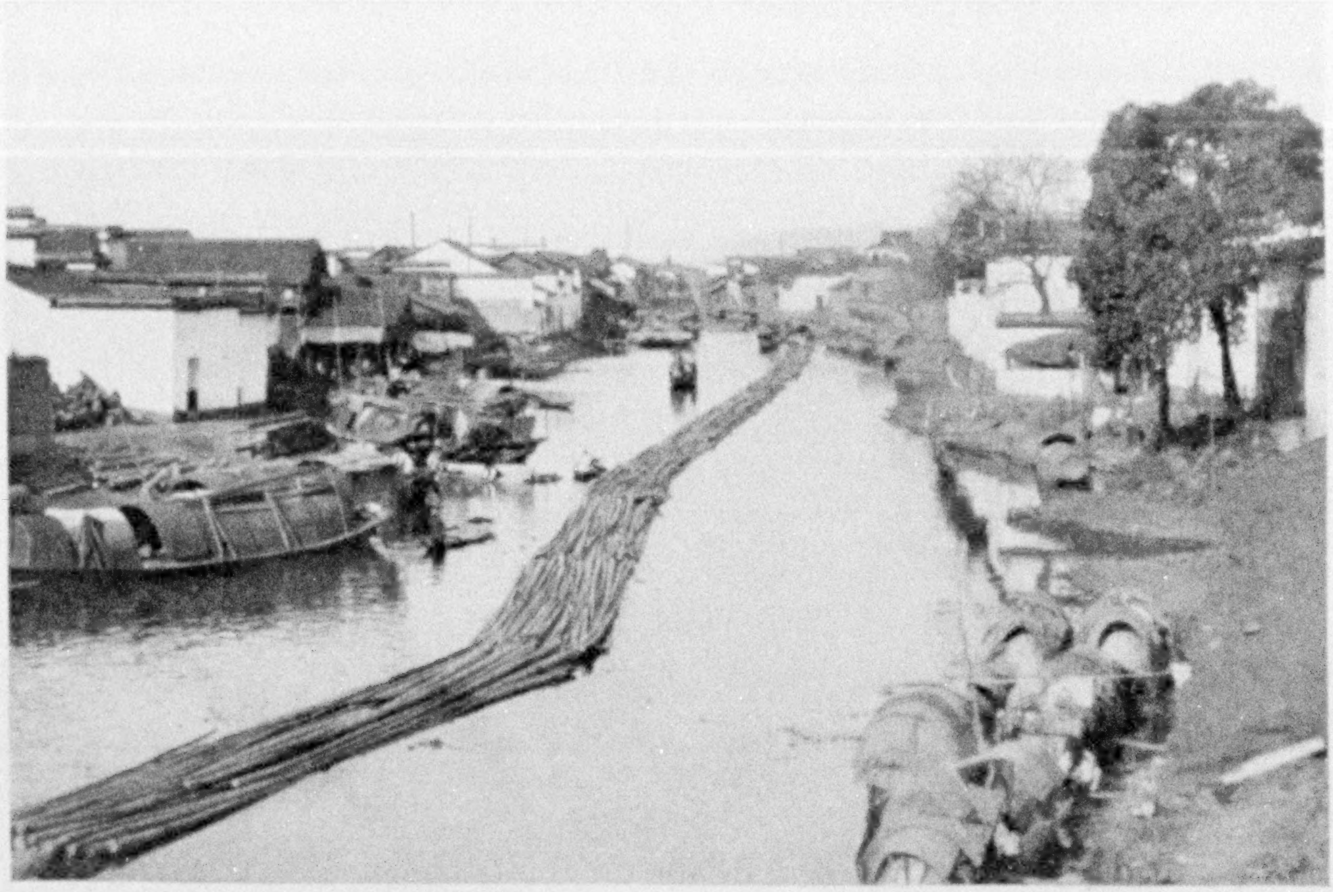
We were now passing ferry after ferry, where lusty Charons, for a copper, transport workers from one side of the river to the other. Hundreds of coolies were waiting for these local Twickenhams, for it was the home-coming hour—the end of the Chinese day of twelve, fourteen, or sixteen hours' labor.

A GLIMPSE INTO GAMBLING ROOMS

We were out on deck again now and presently we glided between the bisected halves of a village. On one side were dirty, thatched huts; on the other open shops, pleasantly lighted and airy in the cool night.

Of course, the men of the village were in the shops. In one a cheerful gambling game was going on. Men were excitedly calling out the sum of the fingers outstretched between themselves and an opposing player. Other men were playing a game much like our Rochambeau, where the players call out "scissors," "paper," and "stone," with penalties attached for the inferior article or substance. It was a pleasant, cheerful Babel.

A woman on the dark-hut side of the village was screaming at a man across the river. He answered none too pleasantly. She screamed again; he shouted back



Photograph by Maynard Owen Williams

A LOG RAFT SNAKING ITS WAY THROUGH ONE OF HANGCHOW'S WATER HIGHWAYS

With the hills long since denuded of trees and brushwood, except around temples and tombs, the question of fuel in China is vital. Grass, rice straw, cotton stems, pine boughs, and other materials are used for this purpose, but for construction work and boat-building various kinds of foreign woods are imported to supplement the meager native supply.

hoarsely. For several minutes the duet continued. We concluded it was a none-too-patient wife calling her gambling husband home. Not at all. The captain explained:

"She say, 'You give me that dollar you owe me before you lose it.'

"He say, 'I will pay you some time soon.'"

The darkness deepened. The water thumped at our bows. The sounds died away; the villages darkened; the boats moored on the banks quieted; even the watchful kus slept. We tucked ourselves away in our berths.

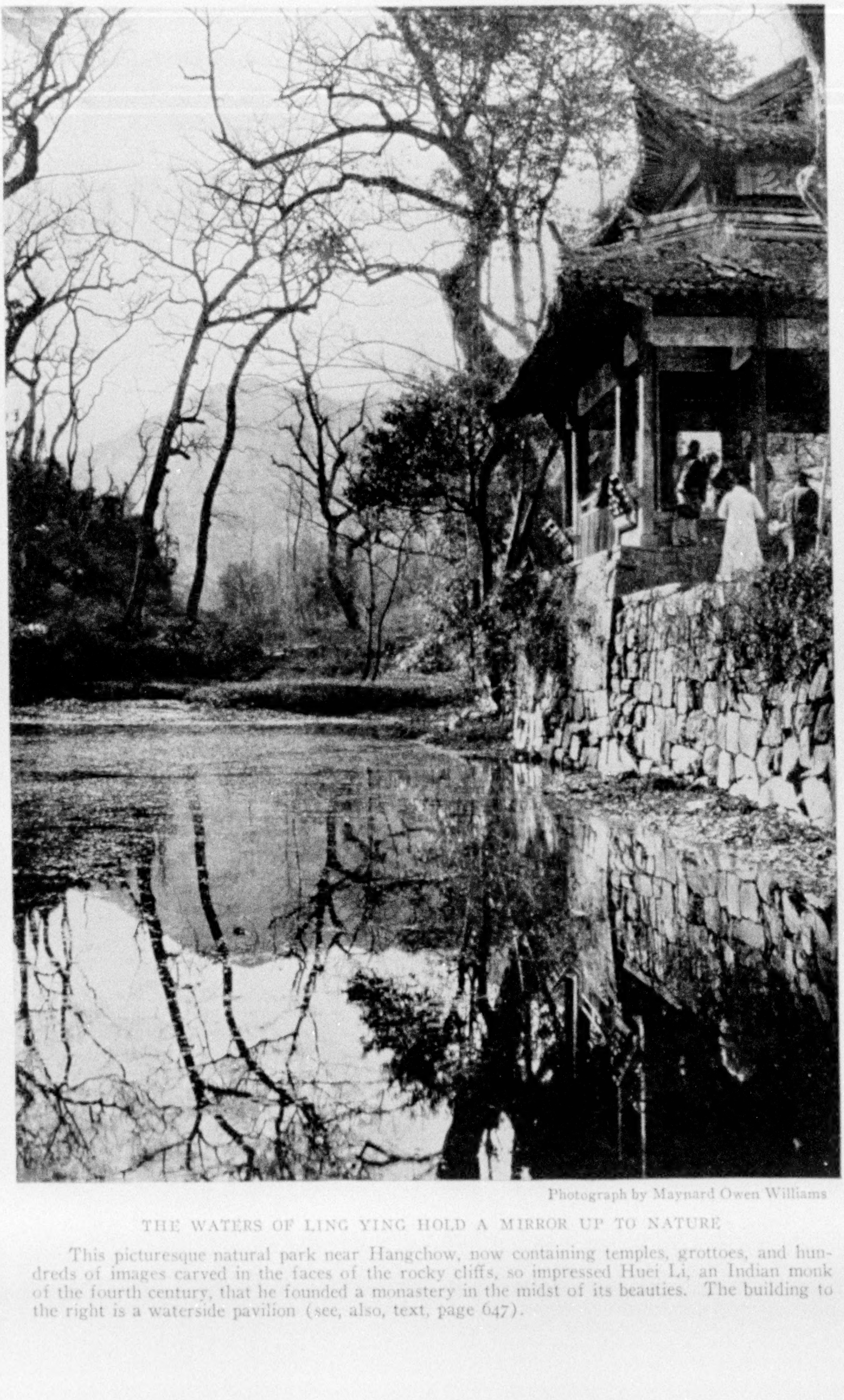
THE "NIRVANA" RUNS AGROUND

About midnight the porthole shutters banged. Bamboo poles, wielded from above, were closing them because of a shower. We turned over comfortably, glad to know that some one was awake and watching. A little later there was a grinding noise; then a volley of expletives—guttural, explosive, unmistakable. We bumped; we stopped; the boat behind us tripped on our heels and threatened to climb over us. Only the cannon ball of rope between us prevented a catastrophe. The whole tow seemed in a mix-up.

One may be as frugal in the use of vituperation as the captain of the good ship *Pinafore*, but swearing in any language is unmistakable. Our captain was no amateur. We chuckled to ourselves as the angry voices rose and fell—mostly rose—into perfect shrieks and howls of abuse and derision.

We had run aground. Some coolie on watch had dropped off to sleep, and it took much poling and much good Mark Twain Mississippi River talk to get us off again; but presently we were once more steaming upstream, with the water purring and lapping around us.

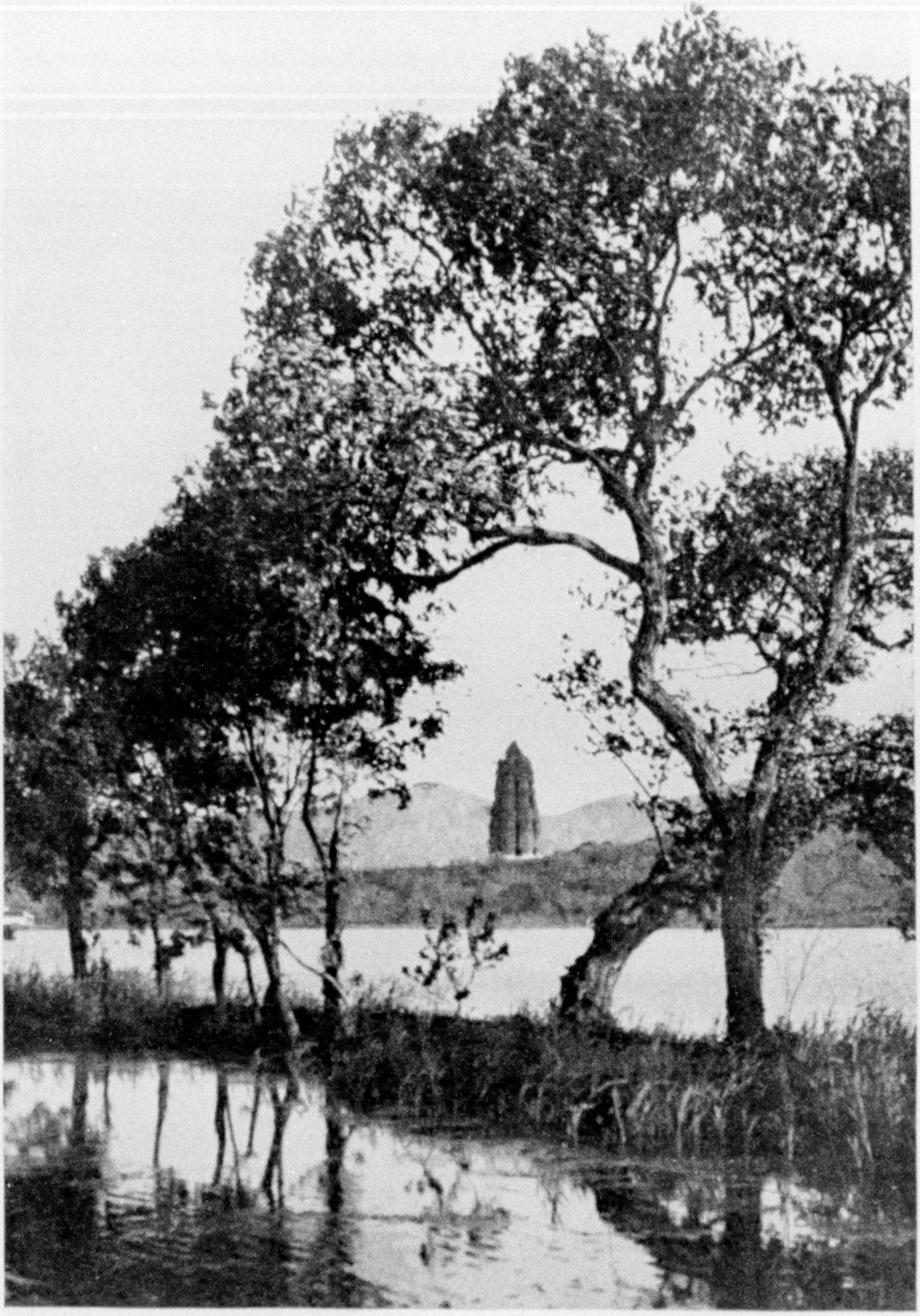
Soochow in the morning! The first boat that passed was a beautiful Arabian Nights effect, with Morgiana and her jars, each sealed with a wonderful seal and each quite large enough to hold any



Photograph by Maynard Owen Williams

THE WATERS OF LING YING HOLD A MIRROR UP TO NATURE

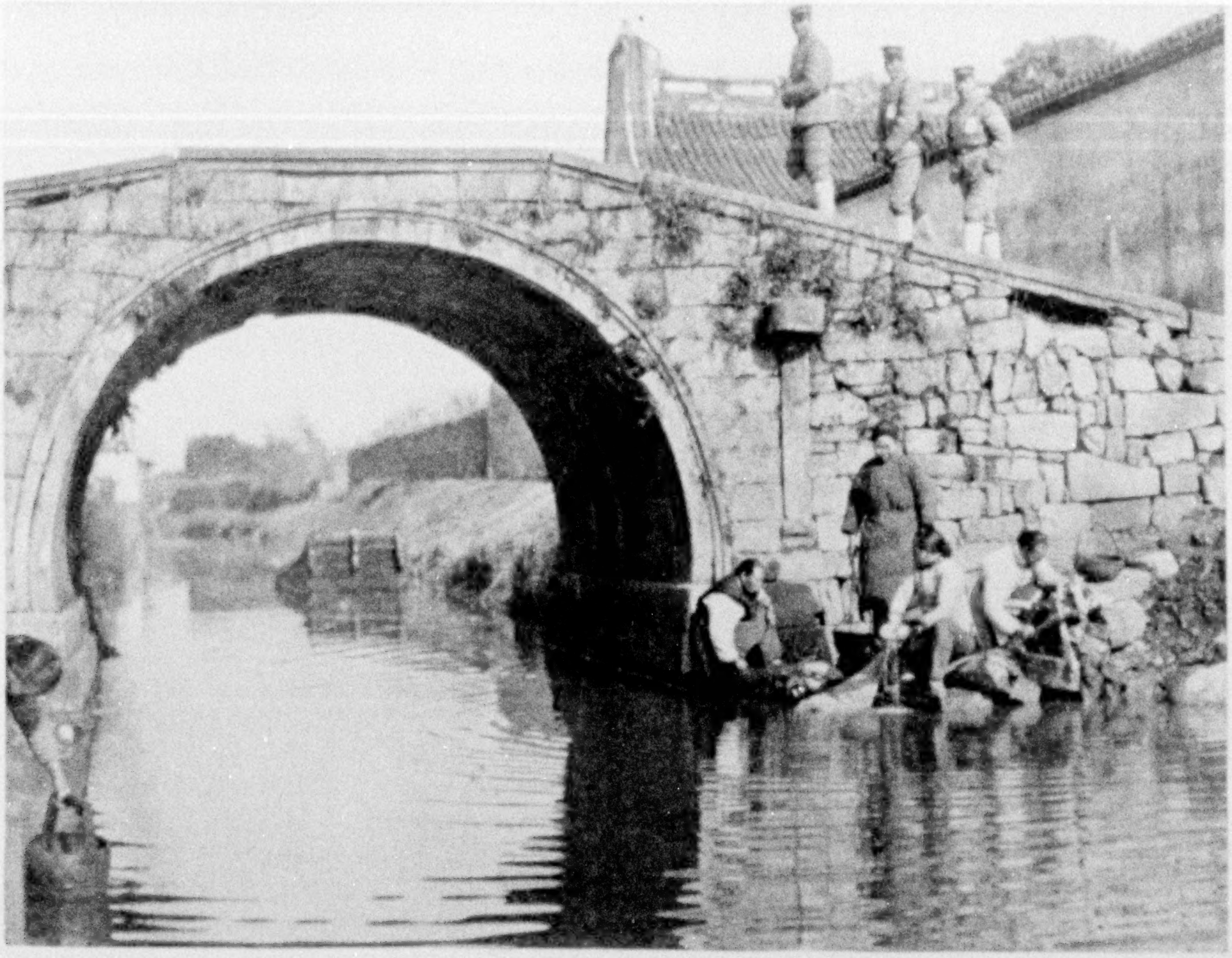
This picturesque natural park near Hangchow, now containing temples, grottoes, and hundreds of images carved in the faces of the rocky cliffs, so impressed Huei Li, an Indian monk of the fourth century, that he founded a monastery in the midst of its beauties. The building to the right is a waterside pavilion (see, also, text, page 647).



Photograph by Maynard Owen Williams

THUNDER PEAK PAGODA PROTECTS HANGCHOW FROM THE DEMONS OF WEST LAKE

Among the decayed beauties of the City of Heaven is this 200-foot tower built by a princess of the tenth century. It is unique in structure, being put together, not like a series of inverted saucers, but like a bundle of reeds or organ pipes. Part of it has collapsed; for, owing to superstitions bound up with it, visitors have carried away bits of brick from the walls, which, when scattered over rice paddies, insure good crops (see, also, text, page 647).



Photograph by Maynard Owen Williams

THE HANGCHOW HOUSEWIFE LAUNDERS AL FRESCO

No matter how dirty the water, she uses it freely to "tub" the family clothing or to wash the rice and vegetables for dinner.

perfectly embalmed thief. Many houseboats were permanently moored to the river side. One woman was sweeping her front doorstep, hurriedly and surreptitiously, as women do who must perform that public part of their own housework and who get it over betimes, before many wayfarers are abroad.

This woman's doorstep was water; but weeds and grass and the waste from vegetables had collected about it in the little back eddies of the night, and, with a pole of the ubiquitous bamboo, she dissipated the scum and sent it swirling off to neighboring houseboats, so that the river just before her door was clean!

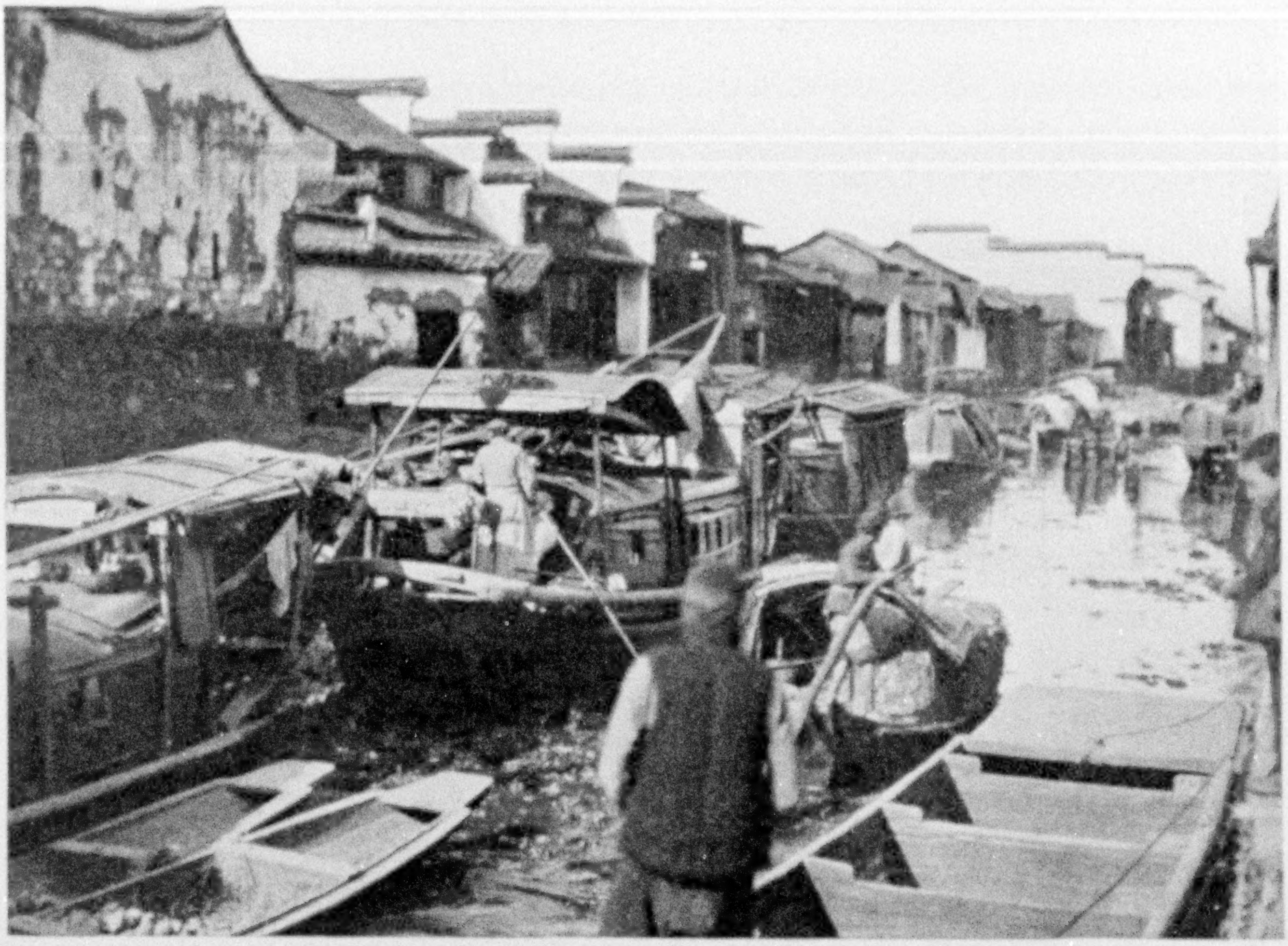
SOOCHOW, FAMOUS FOR "SINGSONG" GIRLS AND SCHOLARS

We were in the moat of Soochow now, outside and underneath the thousand-year-old walls. The ancient barricades looked down on us peacefully enough. The battlements were pierced with loopholes, through which green trees were growing and long strands of creepers veiled the walls. Here and there were crumbling watchtowers (see page 627).

Breakfast over, we found our bearers waiting by the river side, two for each of the four closed chairs in which one sits comfortably, looking out in three directions, and a tiny "one-piece" donkey, with bells for the captain, who is to bring up the rear of our strange procession, although it is he who is to show us the sights of the town (see page 628).

The girls of Soochow are lovely. They are also Cordelia-voiced. The most famous "singsong" girls in China come from Soochow, and those who have had the misfortune to have been born elsewhere claim Soochow for their nativity.

The beauty of the women is matched by the brains of the men, for in the palmy days of Chinese civil service the Ex-



Photograph by Maynard Owen Williams

THE HANGCHOW HOUSEHOLDER HAS TRANSPORTATION AT HIS DOORSTEP

The canals of China not only constitute highways of travel, but provide water for domestic purposes and irrigation, mud for fertilizing the fields, and food in the form of water plants and fish. Between Hangchow and Shanghai there is an average of three inland waterways per mile. Travel between the two cities is at times very heavy, and several companies provide trains of six or more houseboats, steam-towed, for a passenger service.

amination Halls of Soochow sent more honor men to Peking than did those of any other Chinese city. The Examination Halls are in ruins, of course, together with the civil-service system. Silly sheep now occupy the narrow stalls where scholars once pondered the Confucian classics.

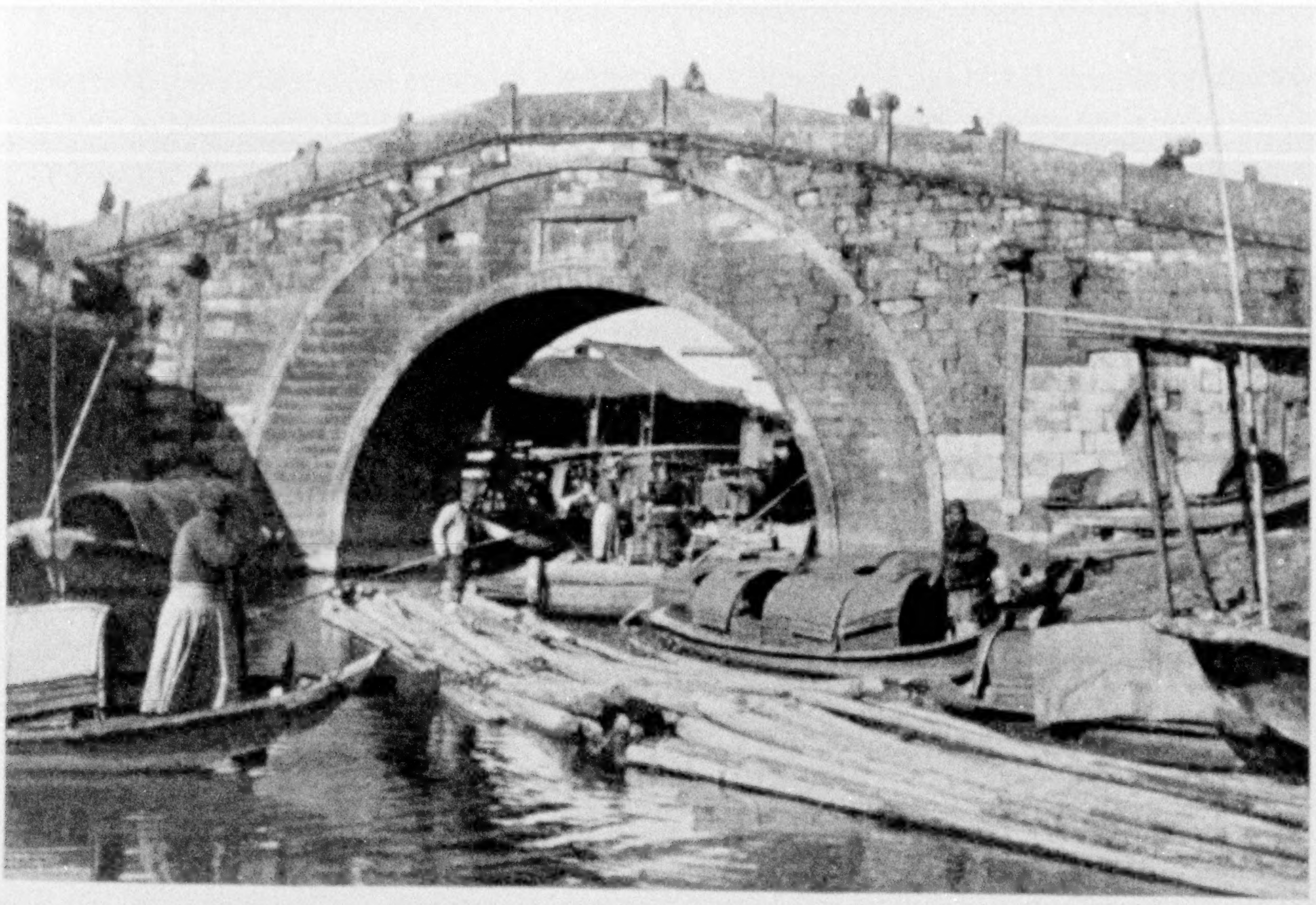
Boston ivy appropriately drapes the age-gnarled trees, and the tablets erected in honor of famous scholars of the past are, many of them, so old that they cannot be deciphered, and the character is known only to antiquarians. A bamboo canopy, evidently new, had been erected in all this ruin over the portico of the Confucian temple.

"Confucius tablet inside," explained the interpreter. "Some high official come every eighth moon to be polite to Mr. Confucius."

"Heaven above and Soochow and Hangchow below," runs the Chinese proverb, and so one is not surprised to find here one of the finest and oldest pagodas in southern China (see page 634).

Only sedan chairs and donkeys can thread the narrow thoroughfares of the city where no wheeled vehicle can go, for Soochow is a sort of Venice, with streets alternating with canals, and where they intersect there are high, curved bridges, very beautiful in form, with from five to fifty steps, which enable the gondolalike craft to go beneath them (see page 634).

The houses face on the narrow streets, with their backs to the canals, and one could see the Pagoda and the temples as well by water as by land—perhaps better—for our chairmen began with a violent altercation as to which pair was to carry the excess baggage in the shape of well-nourished Americans and ended by making every bridge a Bridge of Sighs, as they toddled up and over them (see page 643).



Photograph by Maynard Owen Williams

AN ANCIENT BRIDGE ARCHING THE FLOOD OF TRAFFIC AT HANGCHOW

The magnificent man-made artery of the Grand Canal, second in importance to the Yangtze River as a water highway, winds for 900 miles north from this terminal to Tientsin and is spanned at frequent intervals by archaic stone bridges. According to a proverb, "the Tungs built the towers, the Sungs the roads, and the Mings the bridges." Most of the roads and towers are now gone, but many of the bridges live in the eternal beauty of wonderfully carved stone (see text below).

In and out of the wall through heavy, nail-studded gates, in and out of dark streets with mattings flung from housetop to housetop across the thoroughfare, so narrow are the ways! Had they been straight they must have led direct to Paradise (see page 632).

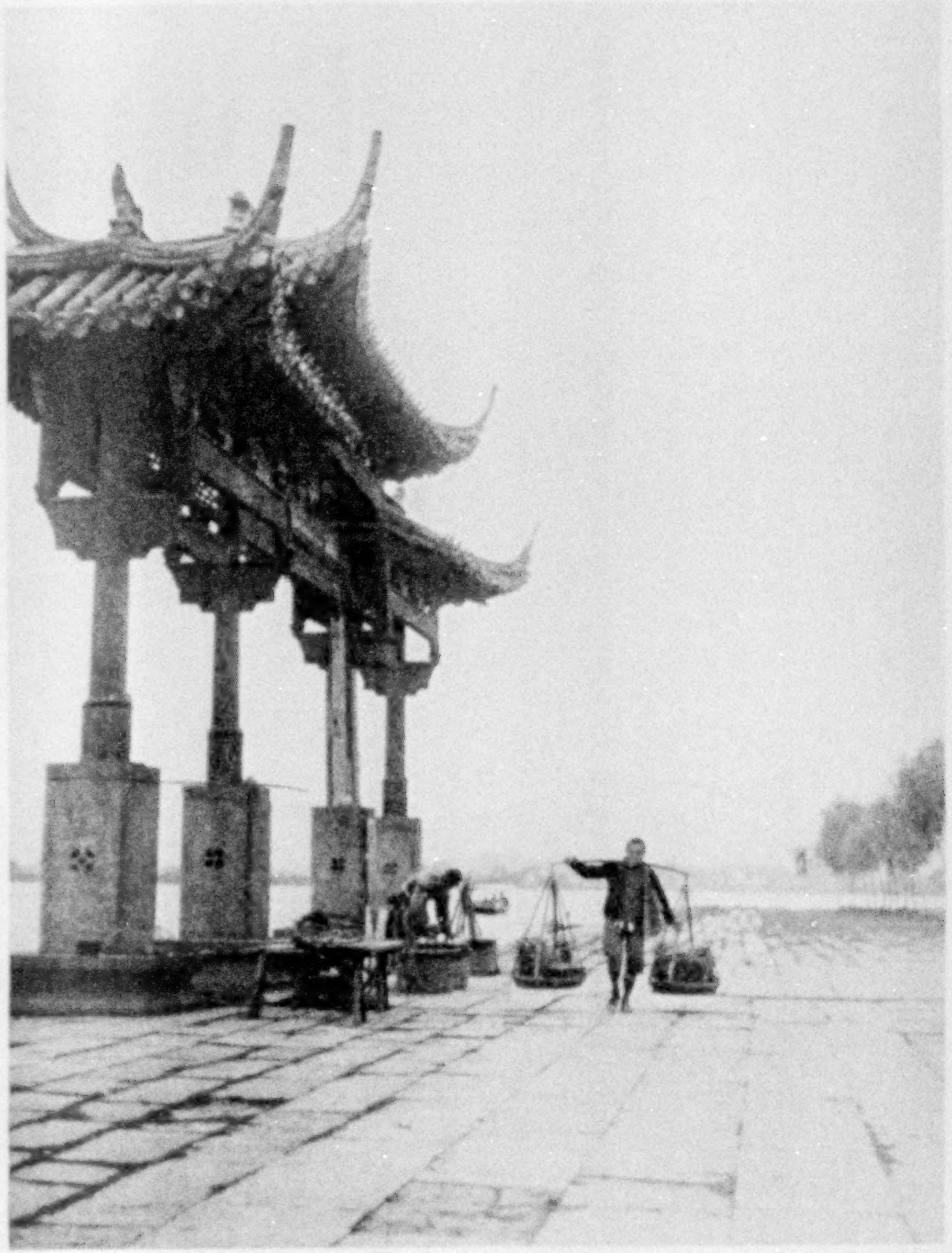
What shoutings and rubbings, as we brushed by donkeys coming in the opposite direction or scratched the lacquer from a passing curtained chair! The paper umbrellas we demolished that day, for it was showery and the very little children, walking like mushrooms under the very big umbrellas, would not heed our cries, but stood quite still, staring at the unusual pale faces, and had their umbrellas torn in consequence.

Now and then we caught a glimpse of the fabled beauty, as a silk curtain in a passing chair blew aside for a moment—very straight, small features, encased in tea-rose satin and eyes larger and more lustrous than the usual.

It's another day by water from Soochow to Hangchow. Such bridges over the Grand Canal and across the little canals which branch from it like veins in the structure of a leaf! There were camel's back, circles, old Spanish without a keystone—each different and more beautiful than the last. The Tungs built the towers, the Sungs the roads, and the Mings the bridges, runs a proverb. The roads are gone and so are most of the towers, but many of the bridges live in eternal beauty, stone wonderfully carved.

OARSMEN DO THE SOOCHOW TWO-STEP

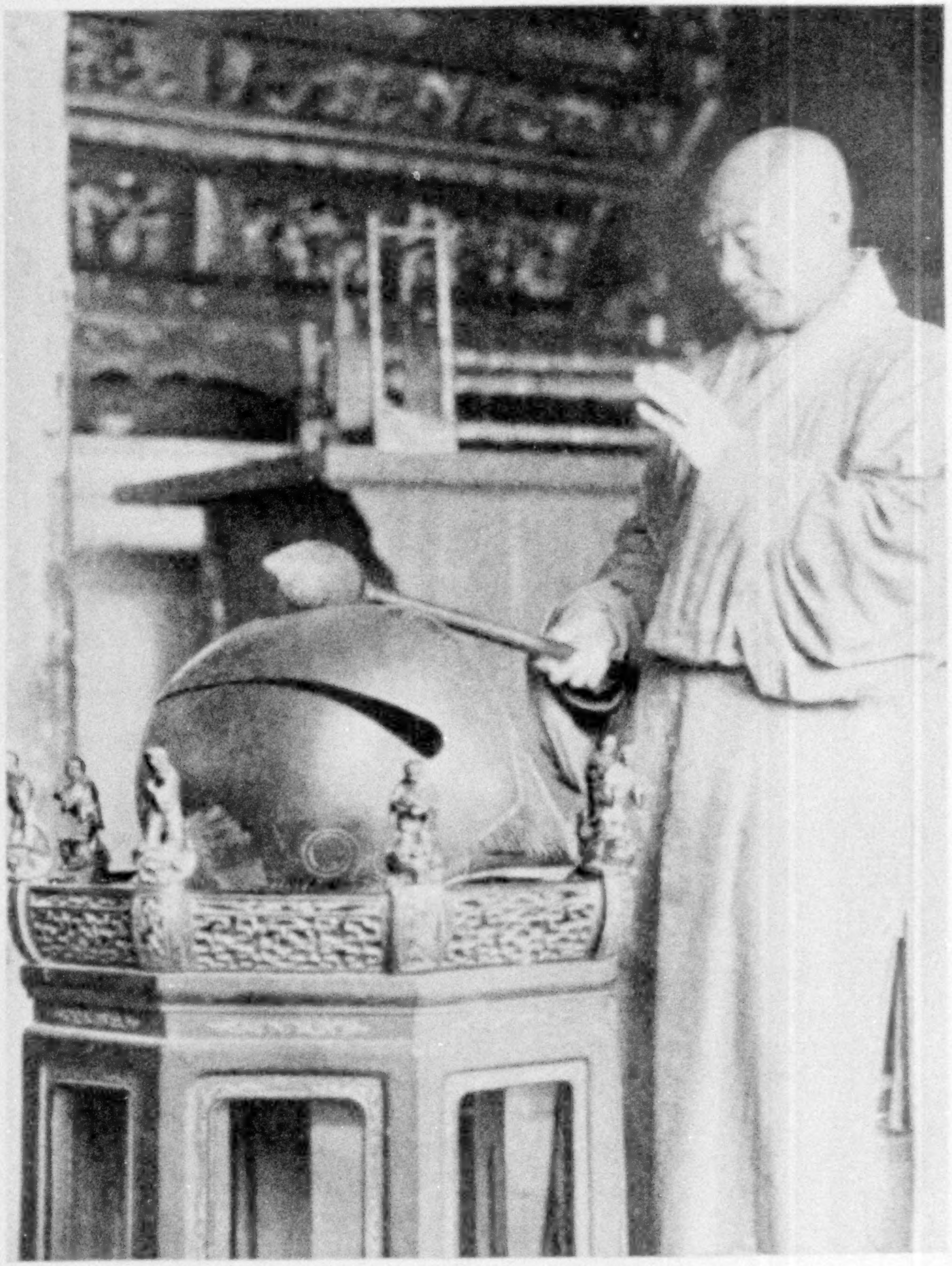
The passing boats were now somewhat changed in character. In many we saw what we christened the Soochow two-step. The rowers, standing at their oars, took two steps forward; then two steps back, like the lobsters in Alice's quadrille, and then threw themselves on their backs on the little decks, all the time grasping the long handle of the oar.



Photograph by Charles H. Kragh

THE GATEWAY TO THE LAKE WHICH MARCO POLO PRAISED

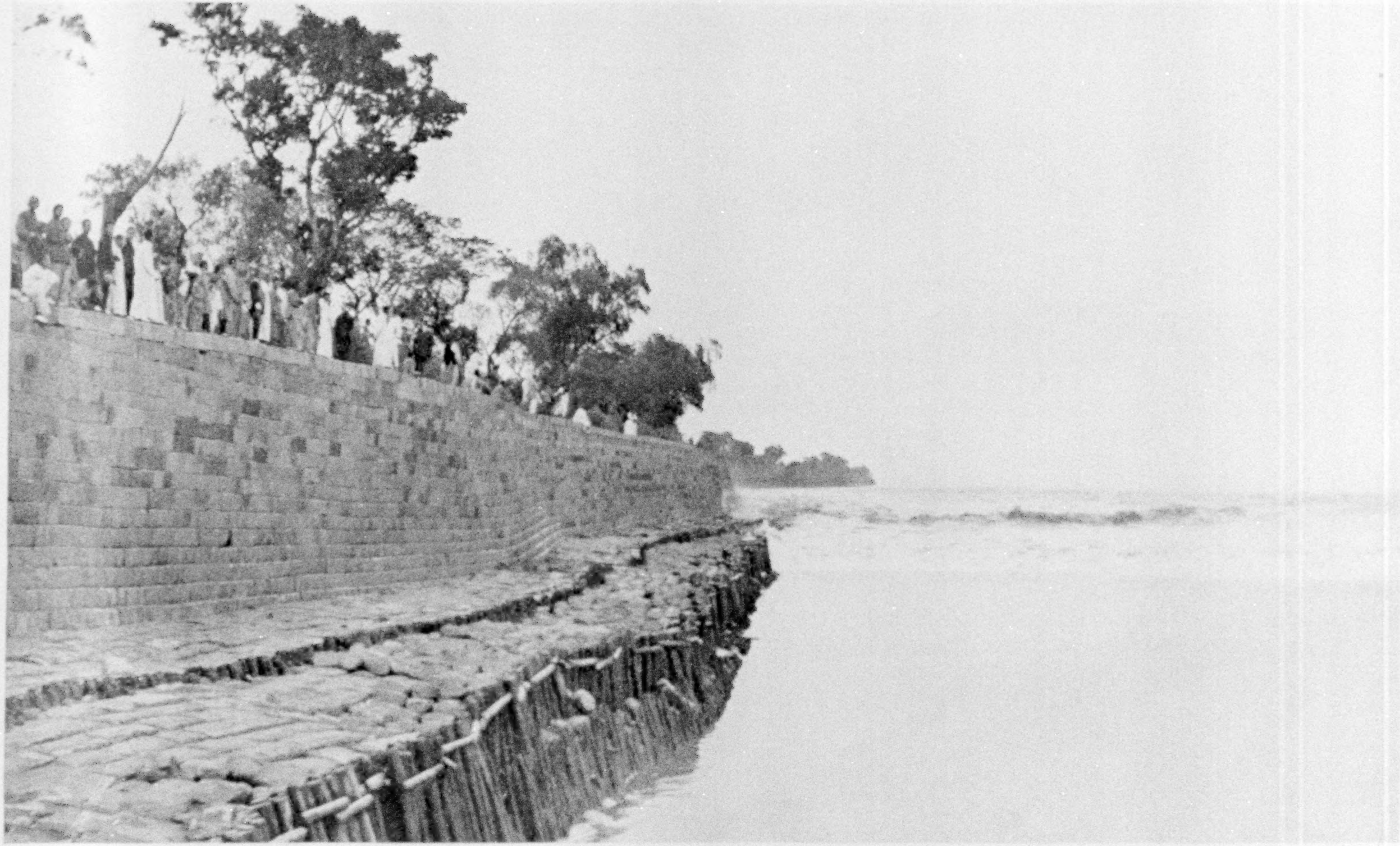
West Lake, at Hangchow, is a popular summer resort for rich Chinese, who delight in its lovely gardens, rich lanterns, temples, and historic relics (see, also, text, page 647).



Photograph by Maynard Owen Williams

HE BEATS HIS PRAYER VIBRATIONS ON A FISH-MOUTH GONG

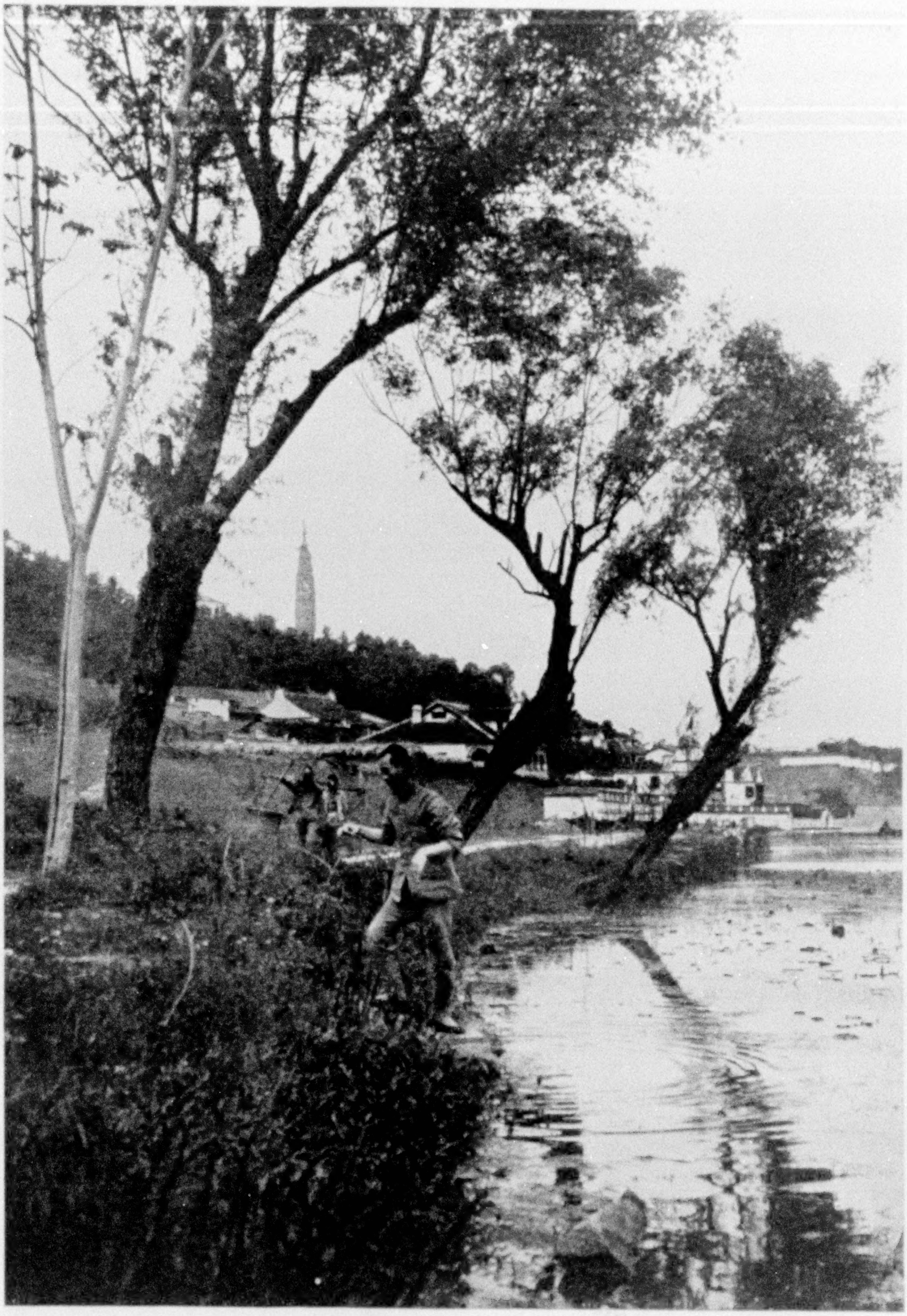
Buddhism was introduced into China from India in the first century of the Christian Era, but now bears little resemblance to the religion in its purer forms.



Photograph by Robert F. Fitch

STONE EMBANKMENTS CURB THE RAGING WATERS OF THE FAMOUS HANGCHOW BORE

A little more than 60 miles wide at its mouth, the Tsientang River narrows to a width of eight miles at a point 85 miles inland. Here the incoming tide contends with the current of the river, piling up a white-crested wall of water sometimes 15 feet in height. The inspiring water spectacle is seen at its best during the equinoctial periods. The well-constructed rampart provides an admirable point of vantage from which to view the phenomenon.



Photograph by Maynard Owen Williams

PAO SHU'S NEEDLE POINTS SKYWARD FROM WEST LAKE, HANGCHOW

This unique structure on Precious Stone Hill is the Pagoda for the Protection of Shu, and was named by a blind Buddhist monk in return for the restoration of his sight. It has been destroyed and rebuilt several times. The man in the foreground is lifting water by foot power to irrigate his fields.

In one case a boy of about fourteen was paddling a heavy blunt-nosed boat alone, while the owner sat at his ease, and at the end of each motion the stocky little fellow threw himself at full length on his back on the deck. He did this from twelve to fourteen hours a day for his food and two dollars a week, for the cheapest thing in China is a man, unless it be a woman or a child. And this with the river so invitingly near!

A man in a canoelike craft of rowboat size had a much better system. Seated in the stern, with an umbrella to shade him from heat or wet, he paddled with his hands and rowed with oars attached to his feet, cutting the water quite swiftly with a muscular action which would at least mean symmetrical development.

Hangchow was reached all too soon, for one could sail these waters of mystery and delight forever. Hangchow is renowned not for its beautiful women, nor primarily for its fans, which are among the finest in all China, but for the obstinacy of its men. Its citizens are averse to open doors and the foreign invasion, and even before the present difficulties the Occidental occasionally heard the once familiar cry of "foreign devil" ringing after him in the streets. It is not considered safe for foreigners to live within the city walls; so the great business corporations of various countries build their compounds outside the gates and only missionaries and Y. M. C. A. secretaries live within the walls.

A CHOICE COLLECTION OF PAGODAS

The city has a choice collection of pagodas—very old and moth-eaten. Thunder Peak Pagoda is unique. Almost a thousand years old, it is built, not like a series of inverted saucers, but like a bundle of reeds or organ pipes. There are eight of these Pipes of Pan, all of stone, but very tottery-looking. One hopes they will stand for another thousand years at least, and so do the inhabitants of Hangchow, for the Thunder Peak Pagoda, you must know, is built over the green fish and the white snake which it holds down, and if it should fall these demons would escape and West Lake would overflow and drown Hangchow and all its people.

It may be, too, as our university-educated interpreter shyly suggested, that the presence of the white snake underneath accounts for the fact that no one ever goes into the pagoda for fear of the snakes said to abound there (see page 640).

WEST LAKE A FAVORITE HAUNT OF THE WEALTHY CHINESE

Much might be said of Hangchow's beauty. West Lake is a famous summer resort for rich Chinese from all over the Republic, as its lovely gardens and rich lanterns attest. There on the fifteenth day of the eighth Chinese moon—our harvest moon—there is always a feast of lights, just to show the Moon that hers is not the only light (see, also, page 644).

In a groove of the hills above Hangchow is a stony canyon where an Indian monk had his attention called to the spot by the excited antics of his pet monkey, to whom the place appeared as greatly similar to his native India. There the monk carved in the cliffs in a single night hundreds of images of Buddha, and there they remain to this day, in memory of his magical industry. The monk also founded a monastery, which, with its surrounding park, is known as Ling Ying, or Soul's Retreat (see, also, page 639).

Just beyond is a modern temple with huge plaster figures of gatekeepers and minor gods. The structure is of old-style design with red lacquer columns, and was erected at prodigious expense by a former director of the Peking and Shanghai Railway, in fulfillment of a promise that he would "make merit" for those whose graves were disturbed—and they were legion—by the building of the railroad. Beyond is the Temple of the Heavenly Bamboo, as beautifully located as it is named, but with the road thereto lined almost solidly with blind beggars.

It was dark before we returned to the *Nirvana*, and our way back through the black and inhospitable city was spooky enough. There was not a light in the streets and hardly any in the houses, or at best a dim one; yet the streets were full of people going home with their ready-cooked suppers, and the restaurants showed Rembrandt interiors full of gossiping, munching people.

We had hoped to slip through unobserved, since the morning had proved our

Photograph by Charles H. Kragh

DRIFTING TO A QUIET HAVEN AT KASHING

From this flourishing city at the junction of the railway and water route, the Grand Canal leads to Soochow and on northward. The trade of Kashing revolves in large part around the hen, for the Chinese are among the world's oldest poultry farmers (see "The Races of Domestic Fowl," in the NATIONAL GEOGRAPHIC MAGAZINE for April, 1927). This region, particularly, goes in for large-scale hatcheries.

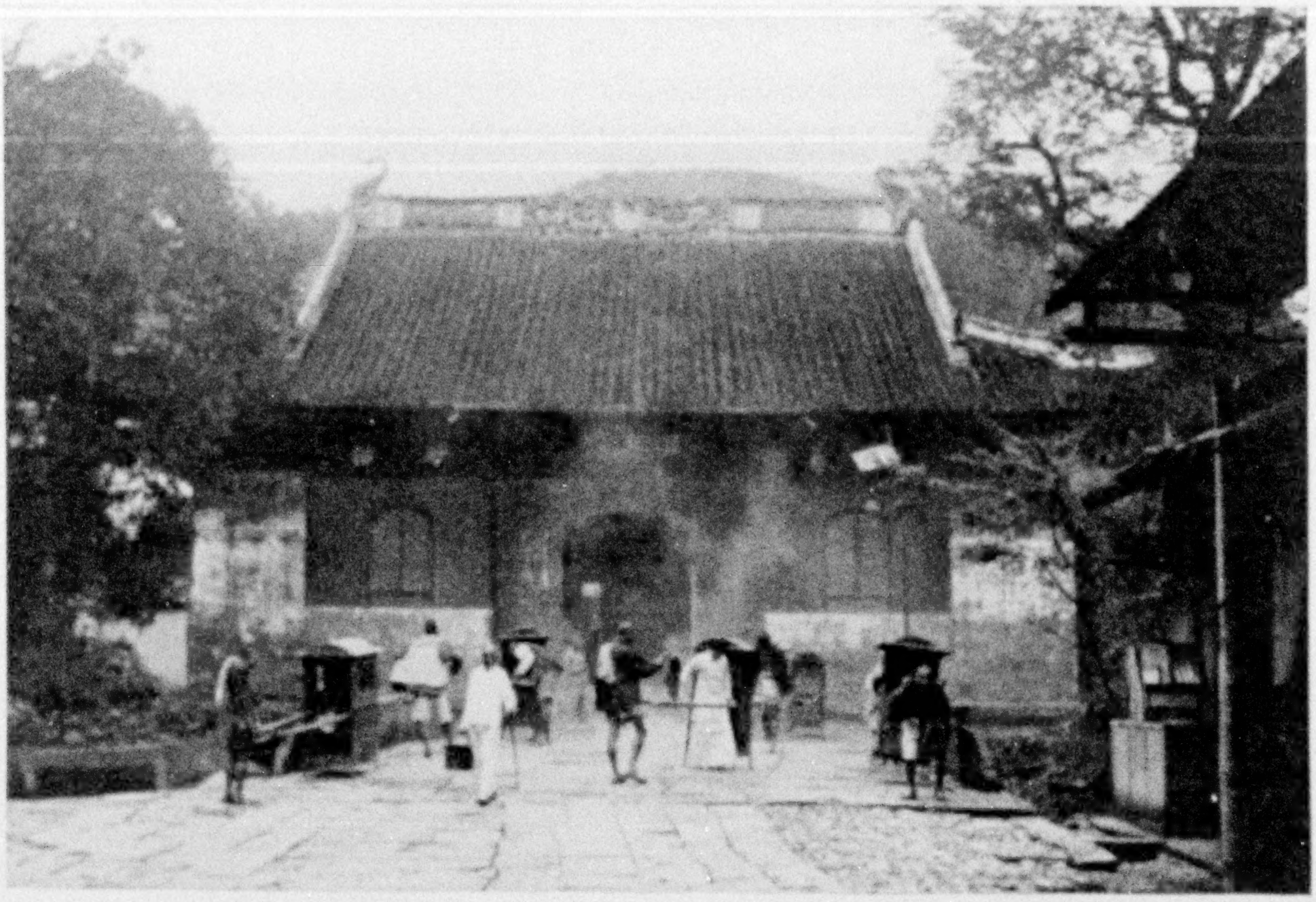
unpopularity, and might have done so had it not been for the rhythmical groans and grunts of our bearers. The result was that everyone rushed to the doors to feel rather than to see us pass.

HANGCHOW'S GREAT BORE FAILS TO APPEAR

As we had bearers of the Mutt and Jeff type and some extra men besides, who changed places and shoulders every two hundred steps or so, the shafts of our chairs had to be adjusted for the big or the little horse. It had been a muddy day and the men's bare legs were splashed to the waist, but their heads were carefully protected by paper umbrellas which they carried in their free hands.

It was the next to the best time for the famous Great Bore, the tidal wave which sweeps up the shallow Hangchow estuary twice a year and creates consternation in the breasts of junk owners and inland dwellers who have never seen or heard a surf. We spent the larger part of the next afternoon awaiting the coming of this tide. It never came or if it did it was too insignificant for those who go down to the sea in ships to notice (see, also, page 645).

Our interpreter was greatly distressed when the promised sight failed to ma-



Photograph by Charles H. Kragh

BUYING INCENSE FOR THEIR DEVOTIONS AT THE LOWER TEMPLE: HANGCHOW

Fully 125,000 pilgrims pay homage to Buddha every year before the shrines of this monastery, which subsists in great part upon the profits made from the sale of incense and trappings. The Lower Temple, which is one of the three large temples in this community, was founded by the same Indian monk who built Ling Ying (see, also, page 639), two miles away.

terialize, but not so we, for we collected about us several hundred young Hangchowers, more friendly but, we hoped, no less loyal than their forbears, who enjoyed looking into our camera and seeing the landscape's lovely hues. They were also greatly impressed when, having been induced to overcome their distrust and timidity, they were allowed to look at one another in the finder. It was a wonder we were not apprehended for sorcery!

There were young mothers, too, cleaner than the average resident of Hangchow who has never seen running water except in the canal, rejoicing in the recent production of a man child, who, floridly decorated, reposed in the maternal arms.

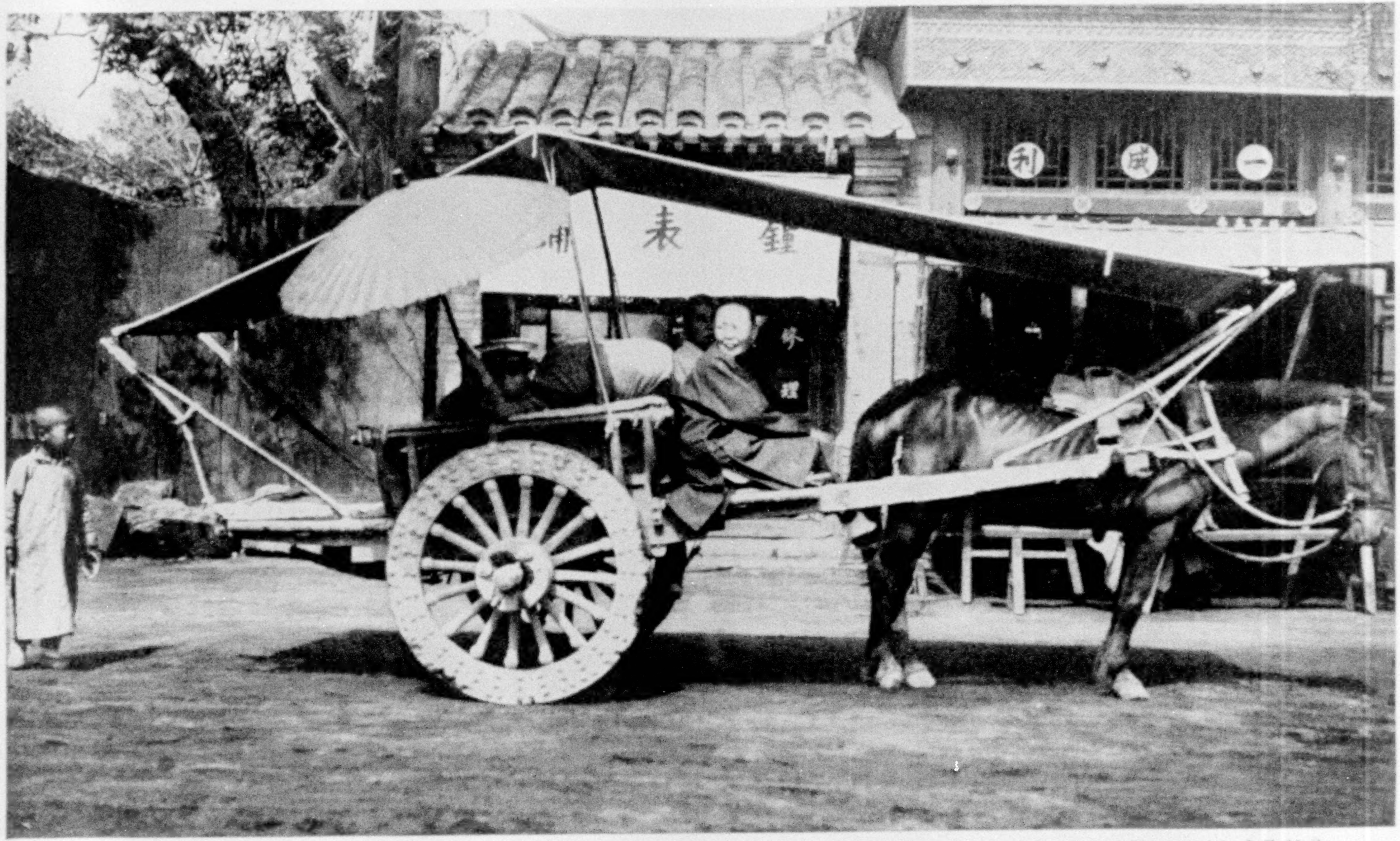
A passenger junk was discharging human cargo almost in the middle of the canal. The tide was low and there was a long reach of mud and water between the junk and the banks. The richest passengers were coming ashore in sedan chairs, the bearers of which, naked almost to the waist, were splashing through the water. The next richest were piling into rude carts drawn by water buffaloes which plodded through their native elements and threatened to mire at every step. The poorest of all tucked up their garments and waded ashore with their impedimenta in bundles on their heads. How could it matter whether the tide with a bone in its mouth came up the canal or not, when one could see a human tide like this?

The next day we saw a motley group surrounding a Caucasian who spoke in Chinese.

"What does he say?" we asked the interpreter.

"He speaks of the end of the world which is at hand," returned our man.

The end of the world for people for whom the world had never begun!



Photograph by J. T. McGarvey

THE JOLTING PEKING CART IS NORTH CHINA'S CHIEF WHEELED VEHICLE

These open conveyances are springless, but furnish a cheap and popular means of transportation for the humbler urban classes, as well as for the country people and their goods. The carts also serve as army wagons. The canvas sunshade extends from the horse's head to the back of the vehicle, but the soldier, in addition, uses a paper umbrella. The three rows of nails embellishing the fellies of the wheels give the appearance of great strength. A hooded type of Peking cart is shown on page 708.

THE GEOGRAPHY OF CHINA*

The Influence of Physical Environment on the History and Character of the Chinese People

By Frank Johnson Goodnow, LL. D.

President, Johns Hopkins University

THERE is probably no section of the world whose geographical conditions have had a more potent influence over its history and over the character of the people than that part of Asia which we speak of as China.

China lies about ten degrees farther south than the territory of the United States. Its position has an important influence upon the occupation and characteristics of the people, because it gives them a longer season and is much more favorable to agriculture than would be a situation, with its accompanying climate, as far north as the United States.

A glance at the map of China (see page 625) shows that the mountain systems are different from those in the United States. Whereas in the United States the mountains run generally from north to south, in China they run from east to west. The result is that nearly all the rivers, being obliged to follow the contour of the land, rise in central Asia, in the highlands of the Himalaya Mountains, and flow east into some gulf of the Pacific Ocean.

The most important of these rivers are the Yellow to the north, the Yangtze in the center, and the West, which empties into the sea at Canton. Fed as they are by melting snows, these rivers are subject, particularly in the case of the Yangtze, to periodical inundations which are quite similar to the inundations that we associate with the valley of the Nile.

The silt which comes with these inundations has had a tendency, particularly in the valley of the Yangtze, to keep up the fertility of the soil, notwithstanding the great demands which are made upon it.†

China has what is known as a monsoon climate. The prevailing winds, except during the monsoon, come from the arid district of Central Asia known as Mongolia and Turkestan.

TWO COUNTRIES IN ONE

When the monsoon is not blowing from the south the prevailing wind is a west or northwest wind, which naturally brings no moisture with it. The climate, therefore, during the winter is extremely dry. There is practically no rain, particularly in northern China, from the end of August until along in April. The big rains begin about July, when the monsoon breaks, with the result that the period of the greatest heat is the period in which the rain is concentrated.

This coincidence of rain and heat makes possible very intensified agriculture, quite different from that which we find in most other parts of the world.

The fact that the rivers run from west to east has intensified, because of the absence of water communication between north and south, the natural differences based on varying conditions of climate. During the history of China we find, therefore, that there has generally been a political division into the north and south. Within the last 250 years, since the coming to the throne of the Manchu dynasty, overthrown 15 years ago, these two divisions have been united, but the history of China shows that that union of north and south has been the exception rather than the rule.

The geographical and topographical situation of China has had two important results: first, a country which is probably more favorably situated than almost any other part of the world for the production of purely agricultural products; and, second, a frequent political division into a north and a south China. It is interesting to compare China from this point of view

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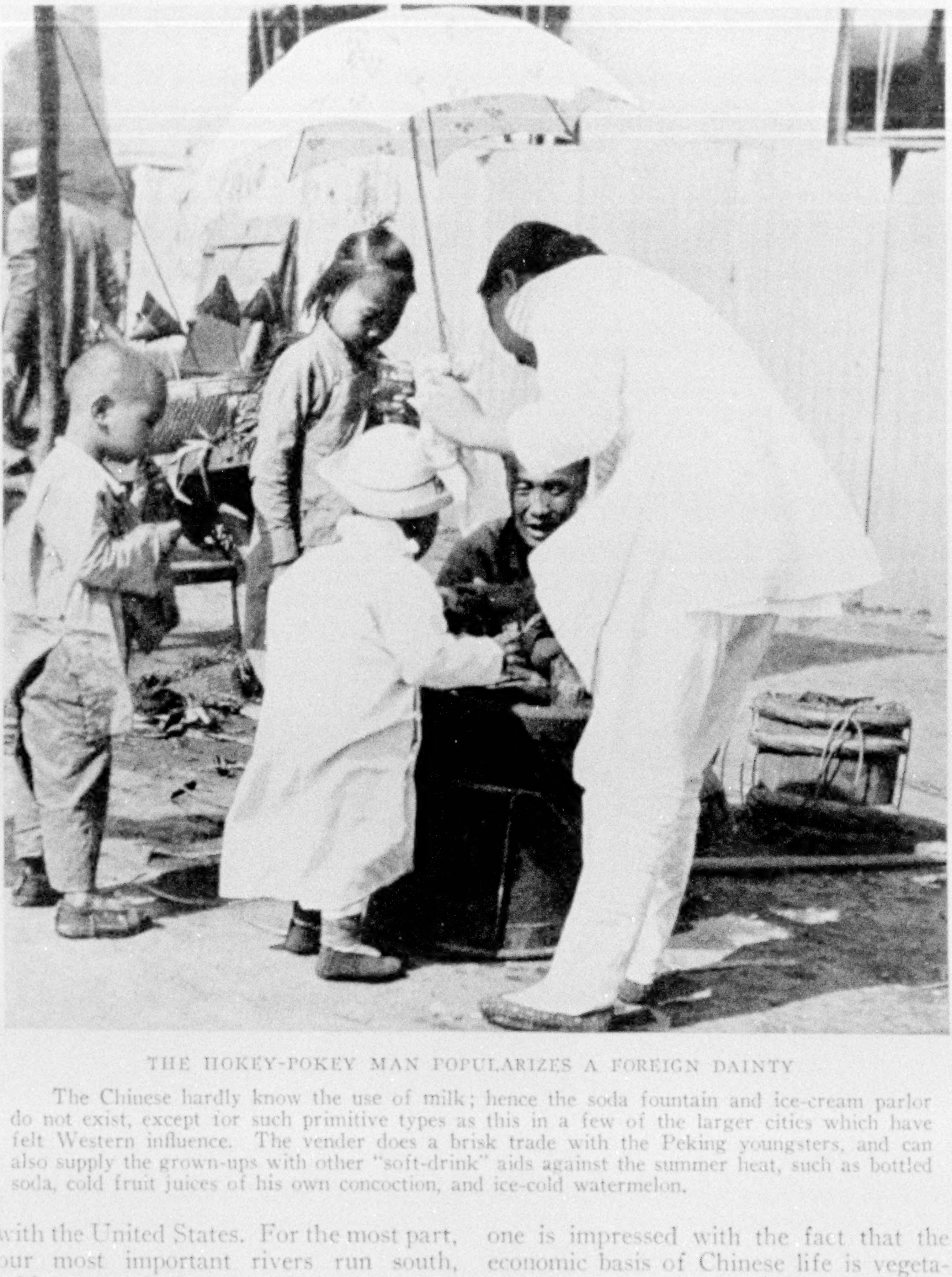
*An address before the National Geographic Society.

† See, also, "Farmers Since the Days of Noah," by Adam Warwick, in the National Geographic Magazine for April, 1927.



THE HOKEY-POKEY MAN POPULARIZES A FOREIGN DAINTY

The Chinese hardly know the use of milk; hence the soda fountain and ice-cream parlor do not exist, except for such primitive types as this in a few of the larger cities which have felt Western influence. The vender does a brisk trade with the Peking youngsters, and can also supply the grown-ups with other "soft-drink" aids against the summer heat, such as bottled soda, cold fruit juices of his own concoction, and ice-cold watermelon.

with the United States. For the most part, our most important rivers run south, with the result that the differences due to climate have been overcome by the ease of communication along the great waterways.

CHINA DEPENDS SOLELY UPON THE VEGETABLE KINGDOM

In going about the streets of the cities and in the country districts of China, one is impressed with the fact that the economic basis of Chinese life is vegetable rather than mineral, metallic, or animal; that is, the things which we construct of metals are, for the most part, in China made of some vegetable material.

For example, the fork which is used for the purpose of pitching hay is a three-pronged implement, made by training a tree so that there will be three main branches. The other branches are lopped off and the fork is cut, and you have the thing ready for use. I do not think I ever saw on a Chinese farm a metallic, iron or steel pitchfork.

In the same way the rakes which are used in China are made of bamboo, split, twisted, and bent out laterally and then over so that the teeth will rake up what is required (see page 655).

FIELDS SUPPLY FUEL AND CLOTHING

Metal is used in extremely sparing quantities. I was very much interested in looking at the construction of the vehicle which is in most common use in the north of China—that is, the Peking cart (pages 650, 708). The axle is made of wood and there are four staples of steel driven in at the outer and inner ends. Instead of using a metallic box, as we do, inside of the hub, there is a mere ring of steel at either end of the hub, which then will revolve upon the staples placed in the wooden axle.

This principle of reliance upon vegetable materials may be observed throughout Chinese life. The people generally, even where there is coal, as in the north, make use of the waste of their fields for the purpose of fuel. In the winter or in the autumn, just before the cold weather sets in, the children may be seen armed with bamboo rakes, scraping and raking the fields to get together every wisp of straw or hay or of any vegetable material that will serve for fuel.

Under those conditions it may be imagined that the northern Chinese cannot afford to keep their houses very warm. I was speaking once to a Chinese about this. He said: "Yes, you Europeans live in your houses. We live in our clothes. When it gets cold we put on another suit, and if it gets colder we put on still another" (see pages 661 and 664).

In the winter in China, one may count by the high collars that come up about the neck the number of suits which are put on for the purpose of keeping warm. A physician once told me that he wanted to examine a Chinese, and before he was able to get to his skin he had to take off 14 suits of clothes!

These garments, too, are made almost entirely of vegetable material—that is, of cotton. The Chinese believe that human life is more valuable than any other kind of life, and generally the production of human life is so excessive that there is no food available with which to feed any animals except the scavengers, such as pigs.

The result is there is no animal product out of which clothes can be made. Clothes cannot be made of wool because there are no sheep, as there is no fodder to feed the sheep; shoes cannot be made of leather because there are not enough animals to supply this material.

Such being the facts, the demands upon the fields are tremendous; but Chinese civilization is so nicely adjusted to those conditions that almost everything that the Chinese uses, the products that he needs, are those which are susceptible of indefinite reproduction by ordinary agricultural processes, or are substances of which he has an inexhaustible supply, like stone and clay.

ALL INDUSTRY POORLY DEVELOPED EXCEPT AGRICULTURE

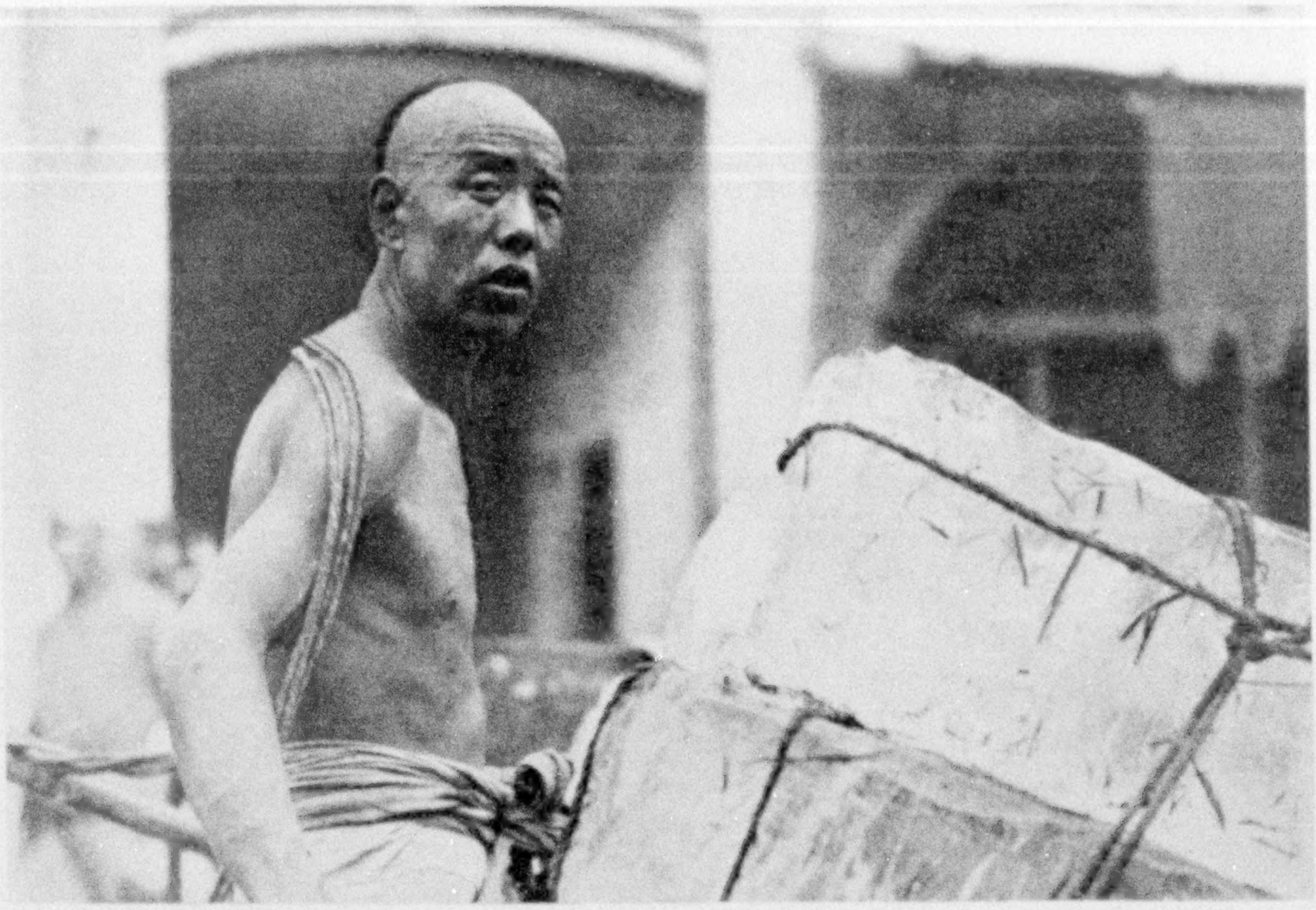
That fact has had an extremely important effect on Chinese life. It explains a great deal that at first sight is a bit puzzling.

In the first place, the carrying on of the agricultural processes, in which by far the great majority of Chinese people are engaged, does not call for any high degree of social coöperation. The land, as a general thing, is held in small parcels. It is cultivated either by single individuals or by the members of one family.

Industry other than agricultural is so poorly developed that there is no call for a high degree of social coöperation, which is necessary in countries based on Western ideas, where great reliance is placed upon the metals and minerals.

Compare Chinese life with our life. We are accustomed to speak of our time as the age of iron and coal. To exploit iron and coal successfully requires a high degree of social coöperation—such a concern, for example, as the United States Steel Corporation, with its thousands and hundreds of thousands of stockholders. That sort of thing the agricultural Chinese do not need.

The agricultural character of Chinese civilization and the fine adaptation of



Photograph by Alexander Stewart

DELIVERING ICE IN NORTH CHINA IS A WARM JOB

This coolie divests himself of all superfluous apparel as he trundles his heavy cakes of ice on a wheelbarrow through the streets of Tsingtao, Shantung Province.

Chinese life to the agricultural character of the country explain in part at least the duration of Chinese life. When we have exhausted our coal and iron, the economic bases of our civilization, China can carry on indefinitely the same civilization which she has at present.

The balance—the equilibrium—is absolutely established between the kind of life that the Chinese have and the conditions which underlie that life.

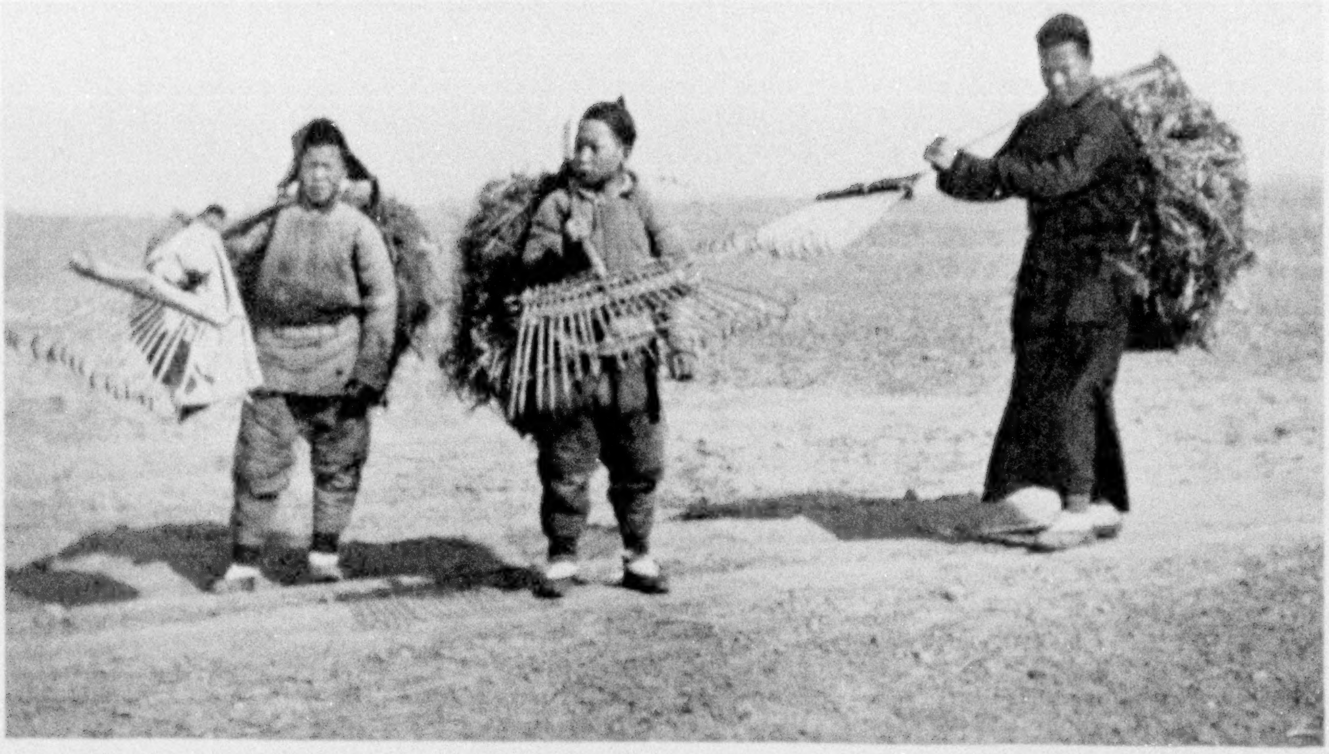
We often speak of China as having the oldest civilization in the world, but we seldom appreciate the full significance of the statement. I once met a Chinese by the name of Kung, who was the 76th lineal descendant of the elder brother of Confucius, and Confucius lived in the years from 550 to 479 B. C. That is about as old a family as one could find anywhere, and it is a family whose pedigree is absolutely unimpeachable.

The name Confucius is a Latinized form of the words Kung-fu-tze, meaning Master Kung. In the family temple on the Shantung estate of the Kung family can be seen the tablets of all the ancestors of the family from 550 B. C. down to the present time. I might say further that Confucius considered, when he lived, that he belonged to a reasonably old family; he traced his ancestry back somewhere between 700 and 1,000 years.

CHINESE CIVILIZATION UNAFFECTED BY OUTSIDE INFLUENCES

Chinese civilization is not only old, but it has been unbroken as compared with ours. Our civilization, of course, finds its basis in that of Greece and Rome; but with the fall of the Roman Empire and its conquest by the Germans, and with the influence that came in from Asia through Christianity, ours, the Greek or Roman civilization, was greatly modified.

None of those things happened in the case of China, which has had somewhat the same problems to meet and has been subjected to somewhat similar influences by which she might have been modified. But she has been able to resist them. For example, she has had on her northern borders a savage people, the Mongols, who bear very much the same relation to China



Photograph by H. W. Robinson

A FAMILY FUEL-HUNTING EXPEDITION RETURNS FROM A DAY IN THE FIELDS

Thousands of homes have no other fuel than bits of straw and refuse which boys are able to find in the barren fields (see, also, text, page 653).

that the Germans did in the old days to the Roman Empire.

China has been conquered at least twice by the Mongols: once in the 13th century, when Kublai Khan was able to subdue the country, as his grandfather, Genghis Khan, had conquered most of Europe, and again in the days of Manchus, who came down from the north in 1644. It was against the incursions of these Mongols that the Great Wall was built, 200 years before Christ, extending for 1,500 miles, from Shanhaikwan, on the Gulf of Pechihli (Chihli), back into the interior.*

The Mongols, however, exerted no such influence upon China as did the Germans upon Greek or Roman civilization; neither had the Manchus any such influence.

The Manchus lost their language, and, like the Mongols, have been absorbed in the Chinese people and have become subject to Chinese civilization. They now speak only Chinese; they have adopted all the customs of the Chinese and have, to all intents and purposes, become Chinese.

In somewhat the same way that Greek and Roman civilization was subject to Christianity, so the Chinese have been subject to an alien religious influence. Buddhism came into China about the first century of the Christian Era, and it was subjected to exactly the same influences to which the Mongol conquerors have been subjected. It has ceased now, practically, to have any particular influence over the people and has become so modified that it bears little resemblance to the Buddhism which, for example, one finds in Burma.

CONFUCIANISM AS AN ETHICAL AND RELIGIOUS FORCE

So, Chinese civilization is very old and it is very persistent. It developed in the days of Confucius, who by some is considered to have had greater influence over mankind than any other individual. And yet Confucius was not exactly an originator, nor did he claim to be. He merely set forth, formulated, the things that he found and which he considered to be correct.

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* See, also, "A Thousand Miles Along the Great Wall of China," by Adam Warwick, in the NATIONAL GEOGRAPHIC MAGAZINE for February, 1923.

Confucianism, which is something in the nature of a religion, is peculiar in that it never had a priesthood. The priestly functions were always discharged, so far as the public was concerned, by the Emperor, the Son of Heaven, as he was called, at Peking, and by his representatives in the provinces. In the capital one of the sights that everyone goes to see is the Temple of Heaven, which properly should be called the Altar of Heaven. On this altar Dr. Wells Williams, who has written in his "Middle Kingdom" probably the best book on China, says that the oldest ritual that the world knows is celebrated.

Confucianism makes no reference to and no use of idols. It is either a monotheistic religion or something in the nature of pantheism. If you go into a Confucian temple at the present time you will see no idol or image, but merely the tablet of Confucius. This tablet is not worshiped. It is placed there merely as a token of respect to the man who has exercised such great influence over the people.

So much for the public religious side of Confucianism. It also has its private side, its family side, being very closely associated with ancestry worship.

TAOISM IS A SYSTEM OF MAGIC RATHER THAN A RELIGION

There is in China another religion, spoken of as Taoism, which has now developed into a system of magic. If you lose a ring, you go to a Taoist priest and he will tell you how to find it. If you desire a forecast of your future, you will find a Taoist priest available for the purpose.

These Taoist priests are "medicine men," who will do almost anything magical or mystical for a consideration, and they obtain for their services considerable money from the people. However, at present, neither Buddhism nor Taoism has any particular influence over the general conduct of Chinese life.

The ethical side of Confucianism is far more important than its religious side. One or two passages from the classic, Chung Yung ("The Conduct of Life"), will suggest how much emphasis Confucianism lays upon the moral law:

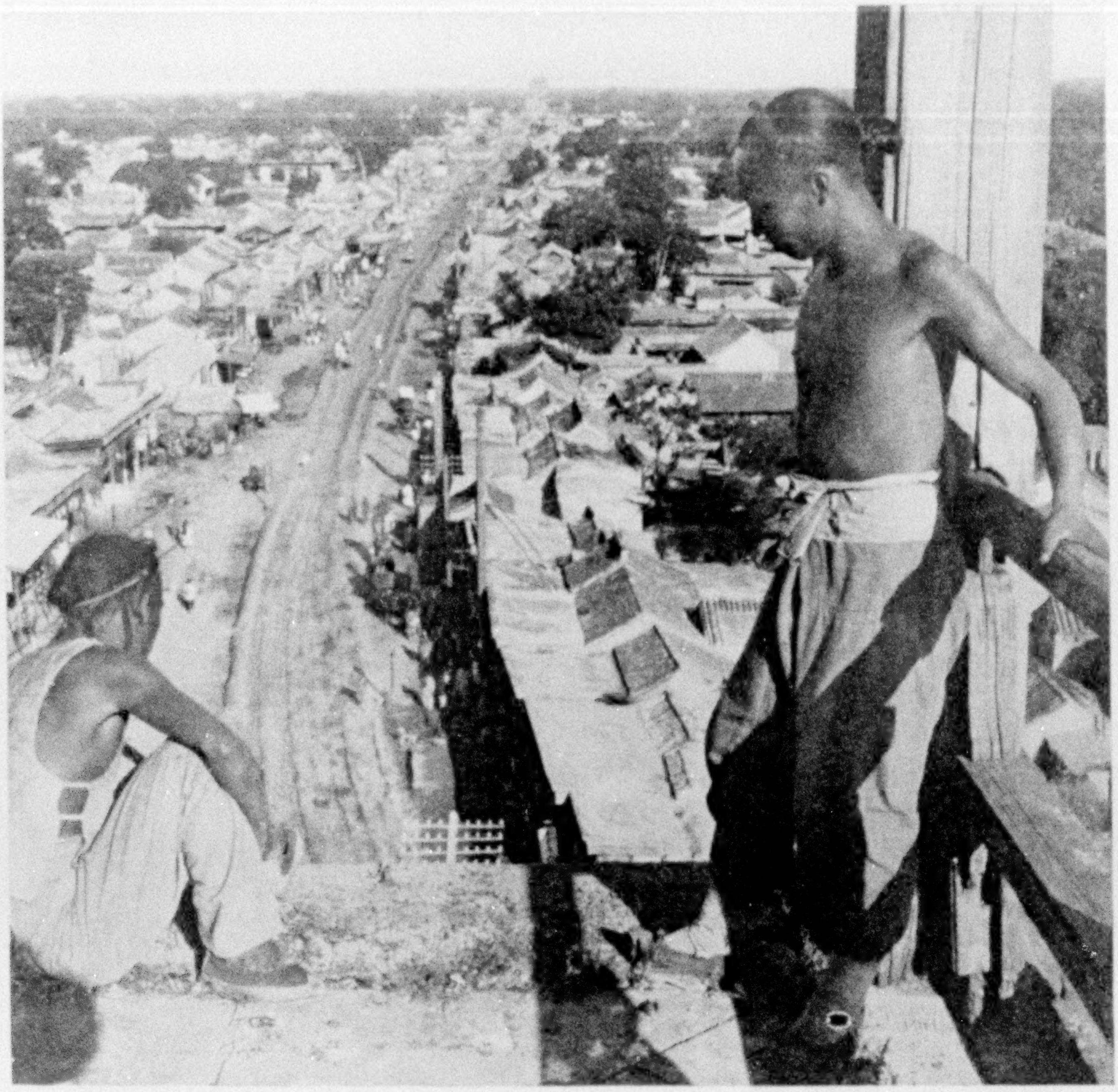
> Oh how great is the divine moral law in man! Vast and illimitable, it gives birth and life to all created things. It towers high up to the very heavens. How wonderful and great it is! All the institutions of human society and civilization—laws, customs, and usages—have their origin there. All these institutions wait for the man before they can be put into practice. . . .
>
> Wherefore, the moral man, while honoring the greatness and power of his moral nature, yet does not neglect inquiry and pursuit of knowledge. While widening the extent of his knowledge, he yet seeks to attain utmost accuracy in the minutest details. While seeking to understand the highest things, he yet lives a plain, ordinary life, in accordance with the moral order. Going over what he has already acquired, he keeps adding to his knowledge. Earnest and simple he respects and obeys the laws and usages of social life. . . . Therefore, when in a position of authority he is not proud; in a subordinate position he is not insubordinate. . . . That is the description of the moral man.

The teachings of Confucianism have had an extraordinary influence on the life of the people. Almost all the education that the children have had for hundreds and hundreds of years has been confined to the study of the Confucian classics, which they learn by heart. Another extract from this "Conduct of Life" shows how little emphasis Confucianism lays upon the supernatural:

> However excellent a system of moral truths appealing to supernatural authority may be, it is not verifiable by experience and cannot command credence; and what cannot command credence the people will never obey. However excellent a system of moral truths appealing merely to worldly authority may be, it does not command respect; what does not command respect cannot command credence; and what cannot command credence the people will never obey. Therefore, every system of moral laws must be based upon the man's own conscience. It must be verified by the common experience of men.

CONFUCIAN FABLES TEACH FILIAL PIETY

The ethical system of Confucius, so far as it was a rule for the practical conduct of life, was closely connected with the family relations, particularly with what are known as the obligations of filial piety. In a small volume called "The Doctrine of Filial Duty," and known by the Chinese name of The Hsiao Ching, it is stated that Confucius was asked by one of his disciples for the primary rule of moral conduct. He said:



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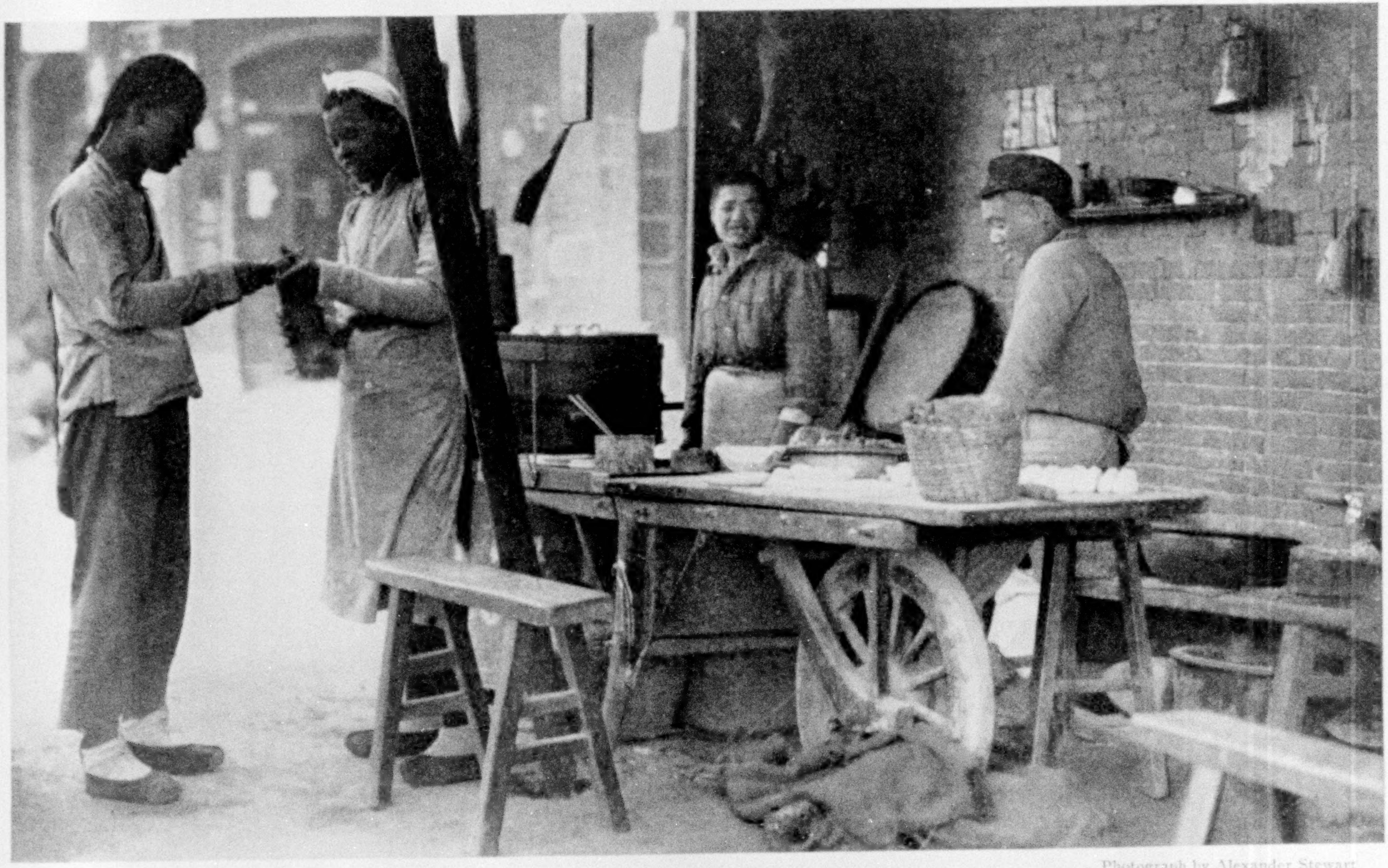
PEKING IS A CITY WITHOUT A SKYLINE

The architectural beauties of the capital of China lie hidden behind dingy walls, outside of which stretch broad highways lined with mean one-story shops, low, windowless house walls, and plastered fence walls. The Drum Tower, from which this view was taken, rises to a height of 98 feet, overlooking the city's gray roofs. It was built in the 13th century and formerly contained appliances for marking time. Before the Boxer Rebellion it housed a number of drums, which were used in signaling the changes of the night watch and on rare occasions to notify citizens of a national calamity.

> The duty of children to their parents is the fountain whence all other virtues spring, and also the starting point from which we ought to begin our education. Now take your seat and I will explain this.
>
> Our body and hair and skin are all derived from our parents, and, therefore, we have no right to injure any of them in the least. This is the first duty of a child: to live an upright life, to speak the great doctrines of humanity; we must win good reputation and reflect great honor on our parents. This is the last duty of a son. Hence, the first duty of a son is to pay careful attention to every want of his parents. The next is to serve his government loyally; and the last to establish a good name for himself.

In the back of this book are contained the celebrated "Twenty-four Examples of Filial Piety," in the nature of stories in fables. Here are two of these little tales:

> In the days of the Han dynasty lived Kuo Chu, who was very poor. He had one child three years old; and such was his poverty that his mother divided her portion of food with the little one.
>
> Kuo says to his wife, "We are so poor that our mother cannot be supported, for the child divides with her the portion of food that belongs to her. Why not bury this child? Another child may be born to



Photograph by Alexander Stewart

GAMBLING FOR HIS "CHOW" AT A SIDEWALK RESTAURANT

If he gets the short stick, he doesn't eat. Many Chinese are gamblers from early youth and are never loath to venture a *cash* or two. The gambling sheds in the slums of the large cities always attract crowds of chance-takers.

> us, but a mother once gone will never return."
>
> His wife did not venture to object to the proposal, and Kuo immediately digs a hole about three cubits deep, when suddenly he lights upon a pot of gold, and on the metal reads the following inscription:
>
> "Heaven bestows this treasure upon Kuo Chu, the dutiful son; the magistrate may not seize it, nor shall the neighbors take it from him."

This fable teaches that the virtuous action of burying one's child alive in order to support one's mother's life will be rewarded.

SON OFFERS HIS BODY TO MOSQUITOES TO SPARE HIS PARENTS

The other story is this:

> Wu Meng, a lad eight years of age, who lived in the Chin dynasty, was very dutiful to his parents. They were so poor that they could not afford to furnish their beds with mosquito curtains; and every summer myriads of mosquitoes attacked them without restraint, feasting upon their flesh and blood. Wu could not drive them away from himself lest they go to his parents and annoy them. Such was his filial affection.

The commentator adds:

> The buzzing of the mosquitoes sounds through the room and their united hum is almost equal to thunder. His tired parents are reclining on their beds, their countenances already sunk in slumber. Legions of mosquitoes fiercely attack them, alternately retreating and advancing. The insects disturb the dreaming sleepers and with annoyance they toss from side to side.
>
> Wu sees the mosquitoes sucking his parents' blood which causes his heart to ache; his flesh, he thinks, can be easily pierced, but that of his parents is hard to penetrate. Lying on the bed he throws off his clothes and, soon feeling the pain of their attacks, says, "I have no dread of you, nor have you any reason to fear me. Although I have a fan I will not use it, nor will I strike you with my hand; I will lie very quietly and let you gorge to the full."

An ethical system so simple, taught as effectively as Confucianism has been taught, leads to a pretty well-defined result—the inculcation of the duty of filial piety, the negation of filial rights, the insistence on filial duties.

It is commonly the case that a Chinese father who attains the age of 50 or 55 retires from work and expects his children to support him. I asked a Chinese to verify this statement. He said that it was true.

I inquired, "What would happen to you if you did not give your money to your father in case he asked you for it? Would you lose face in the community?"

"Lose face? I would probably lose my whole head."

The answer was probably not an exaggeration, for until recently a Chinese father has had the power of life and death over his children. They are his to do with as he will. The power of the father has diminished somewhat in the neighborhood of the European settlements.

I was once requested to preside at what was called a meeting of the Parents' League. I asked its purpose and was told that it was a league to organize the parents so that the children could not force any individual parents to let them go to dances and stay out so late that they could not do their lessons. The parents felt that unless they effected an organization in this way it would be impossible to exercise control over their children.

I could not, on that particular day, preside at that meeting because I had already promised to speak on the subject of "Chinese Filial Duty" at some other place. The contrast between these two conceptions of the filial relations was so marked I cannot forget it.

PATERNALISM HAS ALWAYS THWARTED THE YOUTH OF CHINA

The young man in China never has an opportunity and has not had an opportunity in probably two or three thousand years. He has always been subject to his father's authority or to his grandfather's authority, if his grandfather is alive. Few men are in a position of authority until they attain maturity. This fact may account, to a certain extent, for the conservative character of Chinese civilization.

Another influence of Confucianism appears in the solidarity of the family, quite a different organization from that in America. In the first place, the family consists of all the descendants of a common male ancestor, together with their wives. During the life of the oldest male ancestor the family does not break up, so that in many instances it gets to be a very large social group. Each member feels a sense of loyalty to it.

Photograph by Alexander Stewart

A SHORT REST AND A LONG SMOKE

The field of labor of these coolies is in the Tsingtao harbor district, formerly held by Germany under lease, later occupied by Japan during the World War, and finally returned to China under the terms of the Washington Conference of 1921-22.

One of the most serious defects in Chinese life is the difficulty with which any wider social group than the family can develop. The Chinese never had the conception, until they borrowed it from the Europeans, of a private corporation for the conduct of business. They have attempted to introduce such private corporations in recent years.

In almost every instance the corporation has failed, and largely because of the fact that the Chinese cannot, with his idea of family loyalty, feel any keen sense of fiduciary obligation to stockholders. His first duty is to get members of his family jobs in the company. We do that here, sometimes, but we do not consider it a virtue. In China apparently it is a virtue; for the first duty is to provide for one's family.

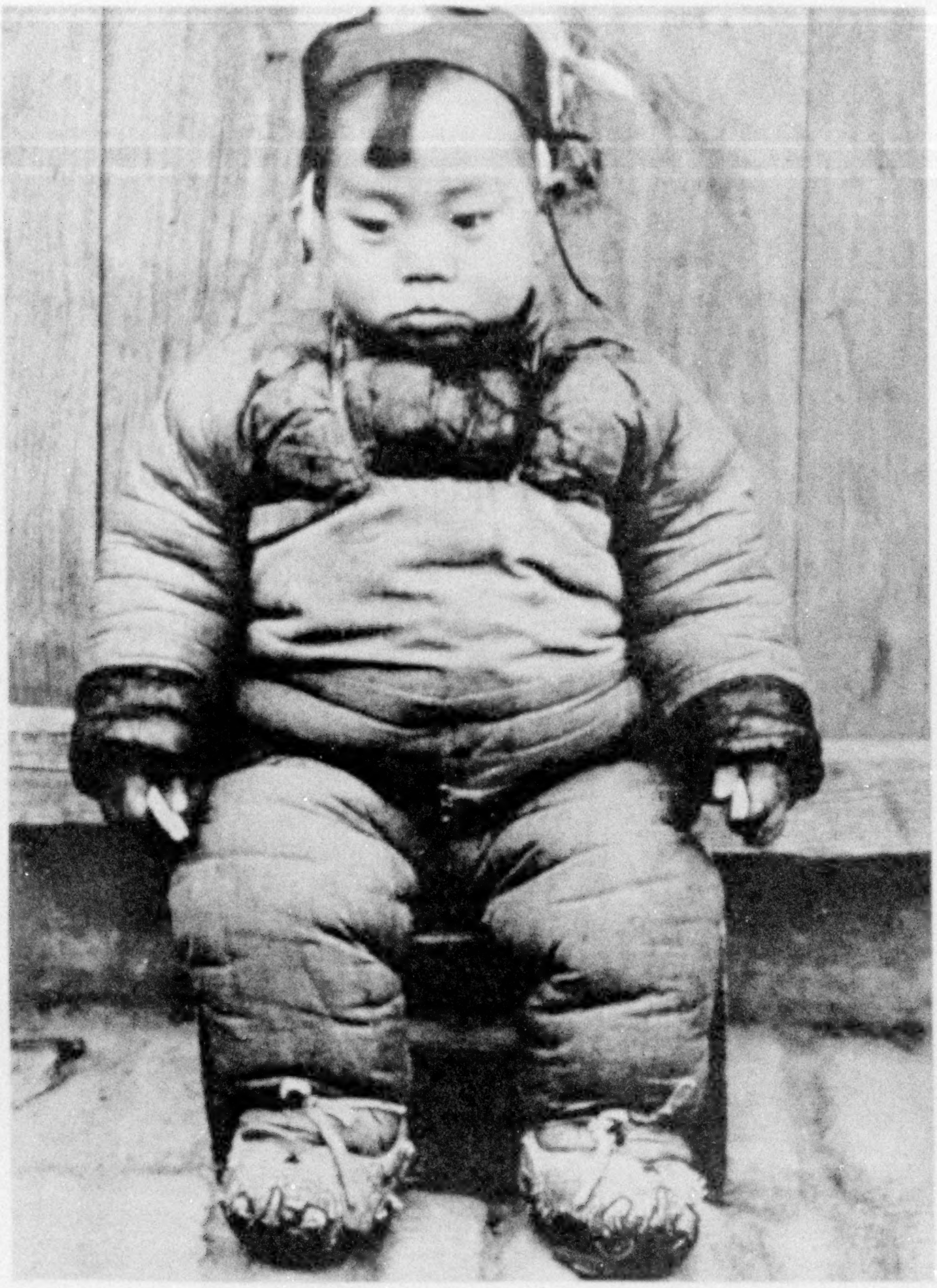
ALL IMPORTANT GOVERNMENT FUNCTIONS DIRECTED BY FOREIGNERS

Combine this fact with the lack of technical efficiency, which is due to the character of Chinese education, and the lot of a Chinese corporation is liable to be an unfortunate one.

Furthermore, the family system has made exceedingly difficult the development of any large sphere of activity on the part of the government. The Chinese do have at the present time a post office, but that is run by foreigners; it was started by Sir Robert Hart. They also have a customs service, but that likewise was organized by Sir Robert Hart and is managed by Europeans. They have a telegraph service, really under the control of the Europeans. In fact, almost all of the modern branches of governmental activity have been under the control of Europeans. These branches have been added to the original Chinese system of government, which is one of almost absolute *laissez faire*, in which the family is the unit, rather than the individual.

There is no system of highways throughout China. There are practically no animals in the south and everything has to be carried on the backs of men over narrow paths or in wheelbarrows. In the north, where the population is not so dense, there are a few carts drawn by ponies and mules, but there are few if any good roads. A carter has the right to go anywhere, and if he makes a track the farmer does not like, the farmer plows in the track; and if the carter does not like that, he will go through the farmer's field. So there is a continual contest between the farmer and the carter.

The only permanent roads are formed where the rains may have washed out something in the nature of a gully. In some parts of China, with the coming of the cart and with the effect of erosion, the tracks have been washed 50 feet below the surface. Just as there were no roads administered by the government, so there were no schools, and no sanitary system. This, however, is changing now. There has been recently quite a school development, and considerable attention is being paid to sanitation.



A COTTON-CLAD CELESTIAL

When a Chinese baby gets cold his mother cannot, perhaps, buy him a garment of wool; she merely puts him into another suit of wadded cotton, and if he is still cold, into a third. This will continue while the thermometer drops, and one may count the number of suits worn by the high collars that come up about the neck (see page 653).

"KEEP THE COURTS CORRUPT TO PROTECT THE PEOPLE"

The collection of taxes, which seems to be a necessary evil anywhere, and the judicial administration were, in the old days, about the only governmental functions. The Chinese, however, never have regarded the judicial administration with any particular favor, and probably they have been right. There was a complaint during the reign of the Emperor Kanghsi, one of the greatest Manchu Emperors, about the corruption and tyranny of the courts. The Emperor received a petition, considered it awhile and issued this decree:

"The Emperor, considering the immense population of the empire, the great division of territorial property and the notoriously litigious character of the Chinese, is of opinion that lawsuits would tend to increase to a frightful extent if people were not afraid of the tribunals and if they felt confident of always finding in them ready and perfect justice.

Photograph by De Cou, from Galloway

A SIDEWALK RESTAURANT IN HONGKONG

"As man is apt to delude himself concerning his own interests, contests would then be interminable and the half of the empire would not suffice to settle the lawsuits of the other half. I desire, therefore, that those who have recourse to the courts should be treated without any pity and in such a manner that they shall be disgusted with law and tremble to appear before a magistrate.

"In this manner the evil will be cut up by the roots; the good citizens who may have difficulties among themselves will settle them like brothers by referring to the arbitration of some old man or the mayor of the commune. As for those who are troublesome, obstinate and quarrelsome, let them be ruined in the law courts; that is the justice that is due to them."

Judicial reform, under those conditions, was naturally difficult.

MERCHANT GUILDS CONTROL CHINA'S COMMERCE

The apparent inability of the Chinese to organize any larger social groups than the family and the development of this *laissez faire* system of administration have resulted in voluntary combinations. For instance, in commerce, organized guilds control business.

These guilds lay down rules in accordance with which the business can be conducted. If anyone does not obey the rules of this guild, or trade union, as it may be called, he is not merely regarded as a "scab," but he is an outlaw against whom every man's hand may be raised with impunity and who will receive no protection whatever from the government. Almost all business disputes are settled by these guilds, whose rules frequently forbid guild members to litigate such disputes in the courts.

The Chinese educational system has, until very recently, been solely literary. The Chinese were the first people in their part of the world to devise a written language. They were, on that account, the only people to develop a literature. They considered naturally that the characteristic distinction between themselves and the outside barbarians with whom they

Photograph by H. W. Robinson

TAKING A LOAD OF FUEL TO MARKET

The vehicle is a Chinese wheelbarrow and the material stalks of kaoliang, a coarse millet which flourishes in North China.

came in contact was this possession of a written language and a literature. To them, further, the sum total of all knowledge was knowledge of their literature. Literature was, to them, the highest type of intellectual activity.

I was speaking with a Chinese once, comparing their system of selecting their officers, which formerly was by competitive examination of a literary character, with ours. He said, "The difference between you Americans and us Chinese is this: you select your officers by counting heads; we select ours by counting brains."

NO LEARNED PROFESSIONS DEVELOPED IN CHINA

One result of this exaggerated influence given to literature was that nothing else was considered worthy of the attention of a learned man, of a scholar. Furthermore, there was no one, and there is now no one in the community who can receive such reverence, such respect, as a scholar, but a scholar is a person who is learned in Chinese literature. Nothing but Chinese literature was formerly regarded as learning.

One of the results has been that there has never been developed in China a learned profession. There was no such thing, for example, as a learned clergy. There was no such thing as a learned profession of the law. There was no such thing as a learned physician. Now, if you take from our intellectual life the contributions that have been made on the one hand by the clergy and on the other by the lawyer and the physician, we would find a great gap in what we regard as our intellectual life.

The exclusive devotion of the people to literature has had the unfortunate effect upon China that technical ability has never been able to develop along scientific lines as it has within the last three centuries in this country and in Europe. The great distinguishing characteristic of modern European and American education is that ours has to do with the ordinary facts of life. Chinese education is imaginative and unreal.

WADDED FOR WINTER

Few Chinese babies know what a woolen garment feels like. A child may have a fur-lined suit for the winter if he belongs to a well-to-do family; otherwise, six inches of padded cotton are sufficient to keep out the cold. Tillable land cannot be spared to raise sheep for wool in a land so densely populated as China. There is little livestock throughout the Republic because there is no fodder.

The conditions that have existed in China during centuries, during thousands of years, are at present rapidly changing. The Christian missions were introduced there in the 16th century. The Roman Catholics came first to the southern part, in Canton, and afterward worked up to Peking. The Protestant missionaries came early in the 19th century.

The work done by the missions has undoubtedly done much to change both conditions and ideas. But China did not actually wake up to a realization of the fact that some change must be made if she expected to compete with the Western barbarians whom she so long despised, but whose efficiency she respects, until 1894 and 1895, when, in the Chinese-Japanese War, the Japanese, who had adopted Western methods, were successful.

This war was immediately followed by a period of reform under the Emperor Quong Hsu, who was afterward deposed by the Empress Dowager, and the period of reaction which was accompanied by the Boxer episode intervened. After the Boxer episode, which may be regarded, perhaps, as the last serious protest, until recently, upon the part of the Chinese against the coming of the barbarians, the present period of reform began.

One of the results of this reform was the overthrow of the Manchus—an alien dynasty—and the establishment of the present "republic." Since its establishment in 1912 there has been little but turmoil. Internal questions have been complicated by the effects of the World War and by efforts of the Chinese generally to free themselves from the unequal treaties made during the latter days of the Manchus.

LIFE AFLOAT IN CHINA

Tens of Thousands of Chinese in Congested Ports Spend Their Entire Existence on Boats

By Robert F. Fitch

President, Hangchow Christian College

With Illustrations from Photographs by the Author

To the traveler arriving in Hongkong, even more impressive than the evidences of British thrift and enterprise is the marvelous panorama of boat life in this Harbor of Fragrant Streams, the English equivalent of the native name for the port.

While modern steamships ride at anchor beside the sailing ships of many nations, fleets of junks from the far north and others from the Dutch East Indies to the south, the eye follows the restless activities of small craft of innumerable types, peculiar to the locality, as they ply ceaselessly between ship and shore or distribute produce and passengers to neighboring islands.

Only a few hours' journey up the Pearl River from Hongkong one encounters an even more vivid and varied boat-life picture in the harbor of Canton and on the numerous canals of the city.

Fifteen years ago 84,000 boats, representing 350,000 people, were registered in Canton; but a terrible flood destroyed thousands of the boats and many were swept out to sea. Probably 200,000 would more nearly represent the city's boat population to-day.

As I went among the boat dwellers of Canton, I found that, although they could understand the various dialects of the landsmen, they had a distinct idiom of their own.

Thousands of these boat-dwelling Cantonese are born and reared, marry, bring up families, and finally breathe their last, afloat. They have known no other life, and they love their boats as the Frenchman loves his soil.

AN AMERICAN'S QUARTERS ON A CHINESE BOAT

The average small floating home is built for the passenger trade. In the center is a cabin, about ten feet long and six feet wide, where perhaps six or seven passengers may sleep.

To the rear of this compartment I take for myself a little cabin, which is three by six feet, with no chair or table, but is simply boarded over almost even with the gunwale. My bedding, which has been rolled up in a palm-fiber mat, is spread out on the floor.

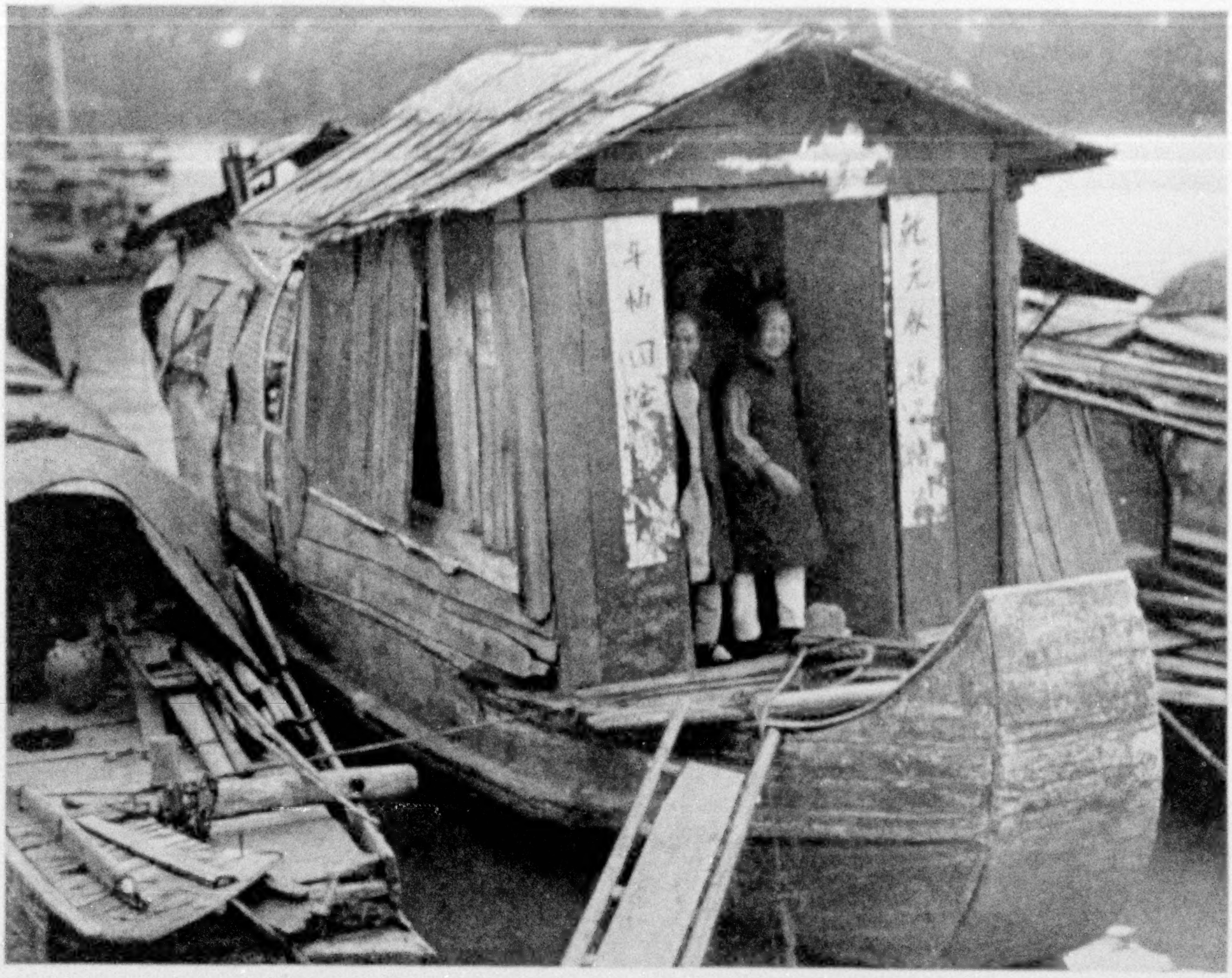
There are sliding-door partitions separating my quarters from my fellow passengers in front and the boatmen in the rear. The latter occupy a small space, about eight feet long, that extends to the stern of the boat. Here and in the hold beneath provision has been made for steering and rowing the craft and for the cooking and sleeping accommodations of the captain and his crew.

SECRETS OF THE MINIATURE BOAT KITCHEN

I arrive on the boat somewhat earlier than the other passengers and in time to see a member of the crew, who has been deputized as a cook, prepare a meal. He raises two short planks on the smooth floor of the rear deck, disclosing in the compartment beneath a small box about one and a half feet square, the lid of which he removes. It is a miniature kitchen, with furnace and rice pan.

Then follows a culinary feat which would seem impossible to the American housewife. In an incredibly short time he is serving steaming hot bowls of rice, two separate bowls of vegetables, one of mutton and one of fish to some of the passengers.

It seems impossible that all of these articles of food could have been prepared in the one rice pan and served simultaneously and equally hot and steaming. The simple secret is this: meats and vegetables are cooked separately and in succession, and each item of food is put into a bowl



THEY WERE BORN, ARE LIVING, AND WILL DIE AFLOAT

Thousands of Chinese are too poor to live on the shore. The average farmer in China can support a family of five or six on two acres of land, but this is too great an investment for many of the people. The pressure of population, as well as extreme poverty, causes thousands to take to boats such as these, which are used as living quarters rather than as means of transportation.

when it is done. Lastly the rice is cooked, and when it has swelled to its final proportions the already cooled bowls of meats and vegetables are placed upon the steaming rice, the deep cover is placed over all, and when the guests are ready the five dishes are simultaneously served.

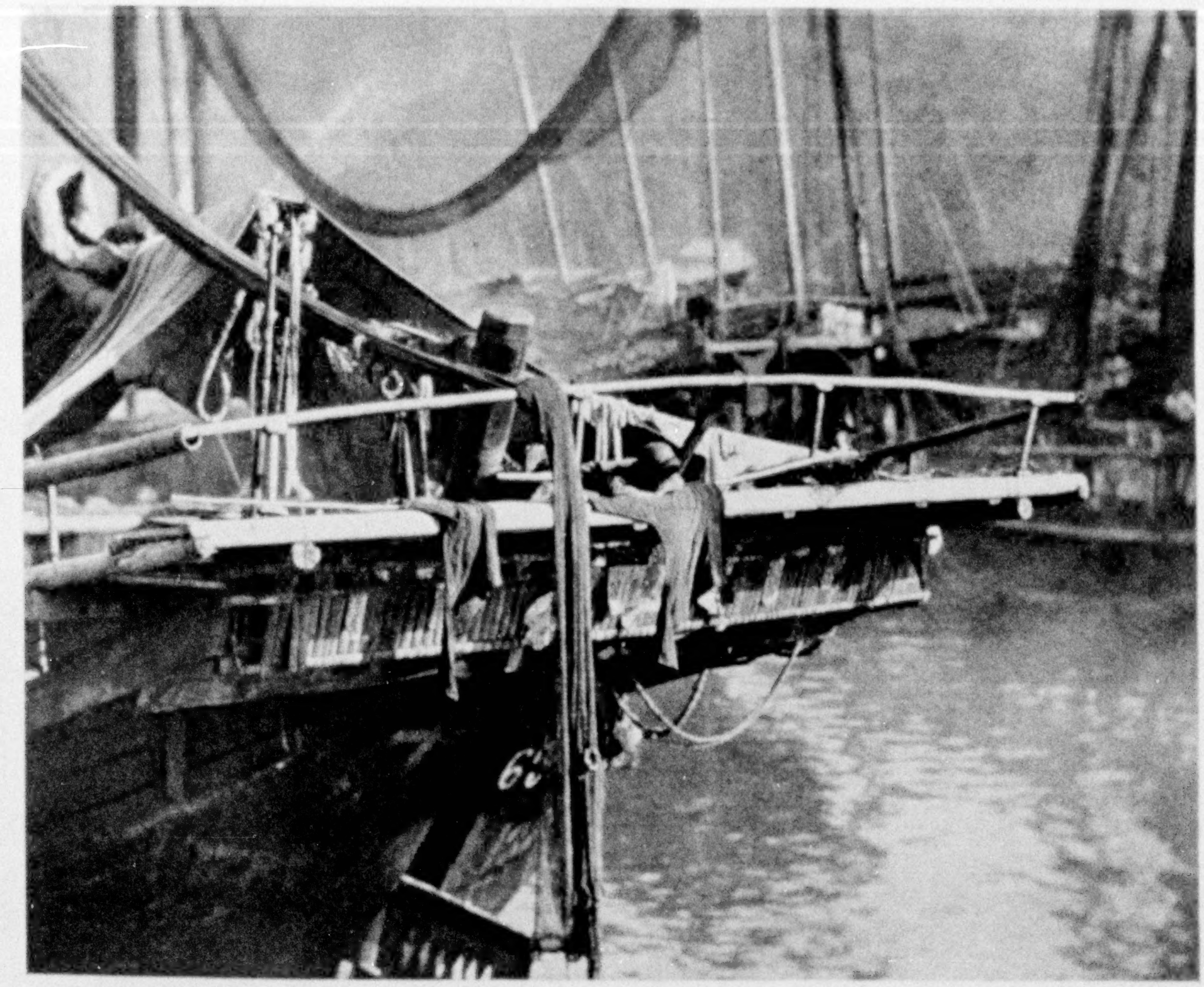
After the passengers have dined, the crew gathers around the cook for their rice and perhaps one vegetable. The men sit on their heels or on the edge of the deck, with their legs cocked up like a carpenter's square rule. They are a merry lot and their jokes fly fast around the circle until the rice jar lies cold and empty, when each one, having rinsed his own bowl and chopsticks in the flowing and turbid stream, stows them away in some corner of the deck.

At the close of the day, when it is too dark to navigate, the men sit against the bulwarks, their legs drawn up and their knees touching their chins, and thus they rest until they become drowsy, when two or three planks are taken up from the deck, and a bedroom about three feet wide is revealed.

After his men have descended, the captain takes a final look up and down the stream and then drops into a narrow space in the bow, where he is about as much compressed as is a jumping jack when the lid is on.

SUPERB PHYSIQUES ARE DEVELOPED ON A RICE DIET

During the night, when the air becomes cold and the breezes blow up the river, one brawny man to the rear places the planks over the opening. In that thick and vitiated air the members of the crew calmly sleep, arising the next morning as if the most modern conditions of ventilation had been complied with.



THE POOP IS A GOOD PLACE FROM WHICH TO DRY THE FAMILY LAUNDRY

Note the head peering over the stern. The small children are kept from falling into the water by a cord tied to an ankle. The larger ones have more deck freedom, but if they fall off a gourd fastened to the waist will buoy them up (see text below). Very few of the boatmen of the large ports can swim.

While the boatmen generally subsist on rice, I recall that on one trip which I made through the Yangtze gorges the head boatman bought a quantity of raw ginger which was cooked for his crew, and for three or four days the 17 hardy men were served this relish with their rice.

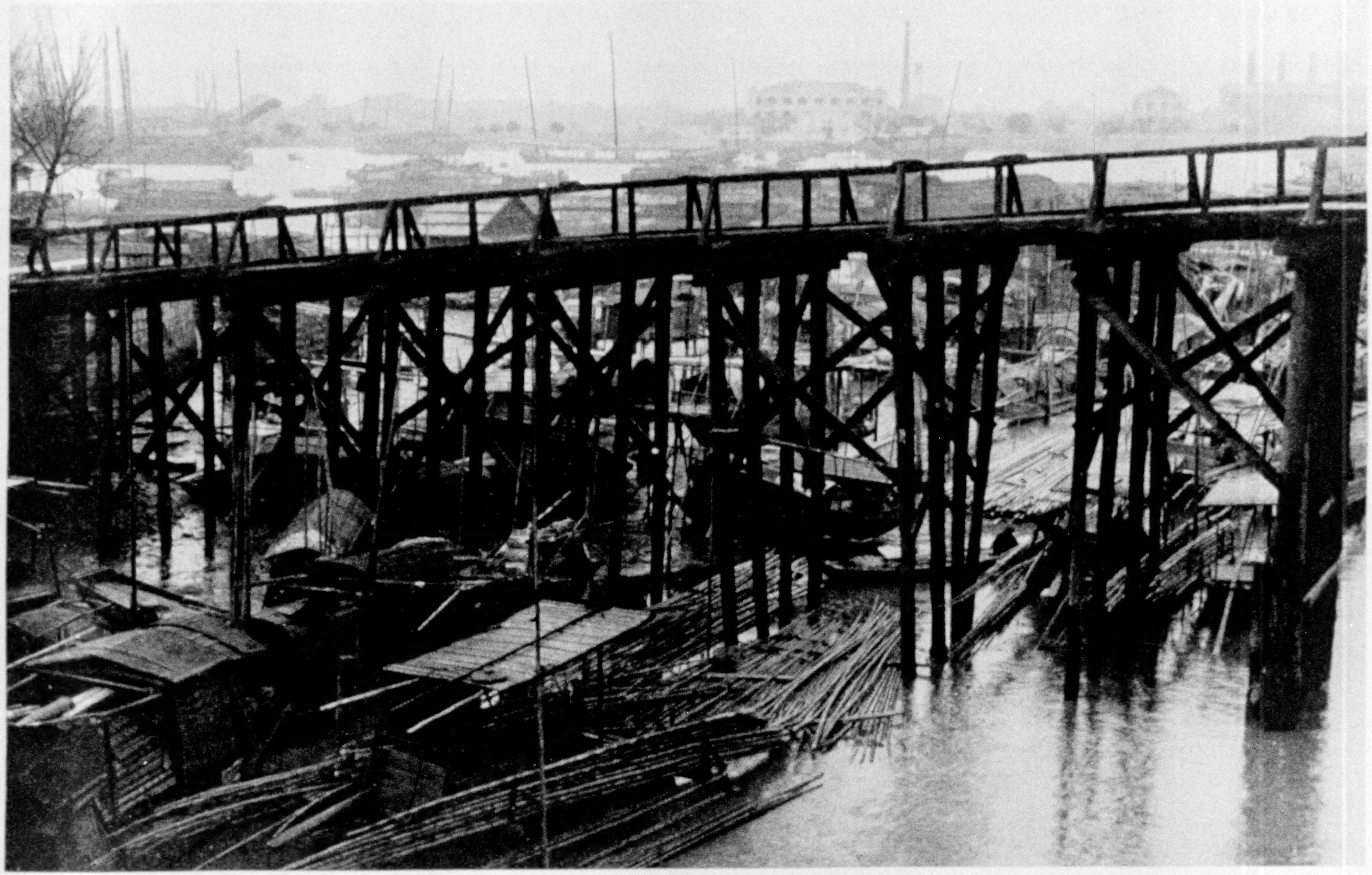
In spite of their simple diet, many of these men have wonderful physiques. In hot weather they wear only a loin cloth, and in remote sections of the interior they go entirely naked.

The one great incentive which the passengers can offer for a speedy trip is to promise a big helping of pork if the destination is reached at a specified time.

To relieve the monotony of a long day's work, which begins before dawn and lasts until after sunset, the boatmen will chant melodiously hour after hour as they tow their craft. They will often divide into two groups, one singing a line of verse and the other giving its response. Sometimes, in the early dawn, when the mists are rising and no life can be seen, it is a wonderful experience to hear in the near distance, along the shore of a canal or river, a body of from 20 to 50 men resonantly chanting as they pull on the towline. Much of their music has a most difficult syncopation, which is learned in childhood.

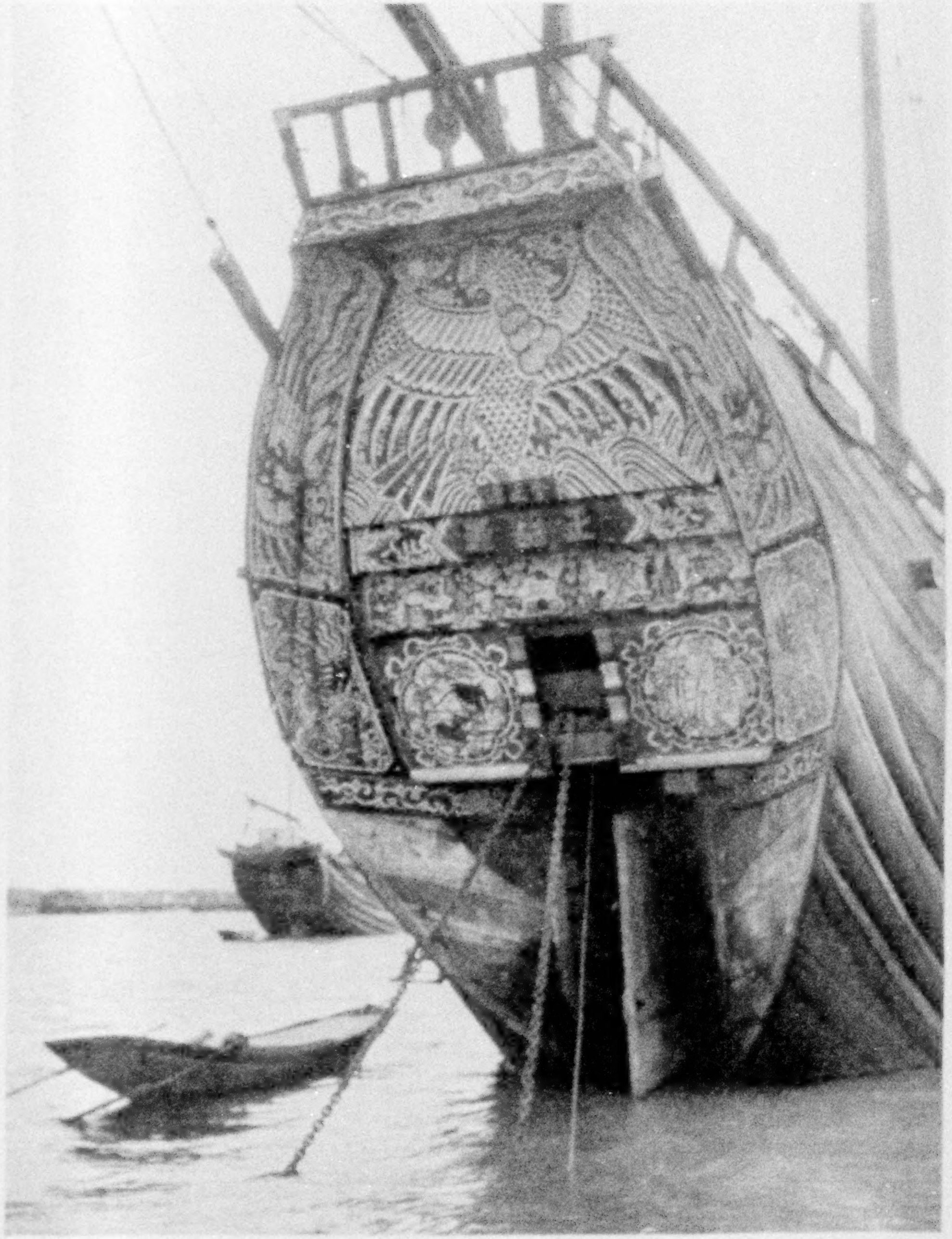
THE MARKET COMES TO THE HOUSEWIFE

On many boats in which I have lived, in addition to the hired crew there has been an aged grandparent of either sex, a son who has taken his wife from some other boat family, and two or three children, including an infant. The baby usually had a strong cord tied to one of



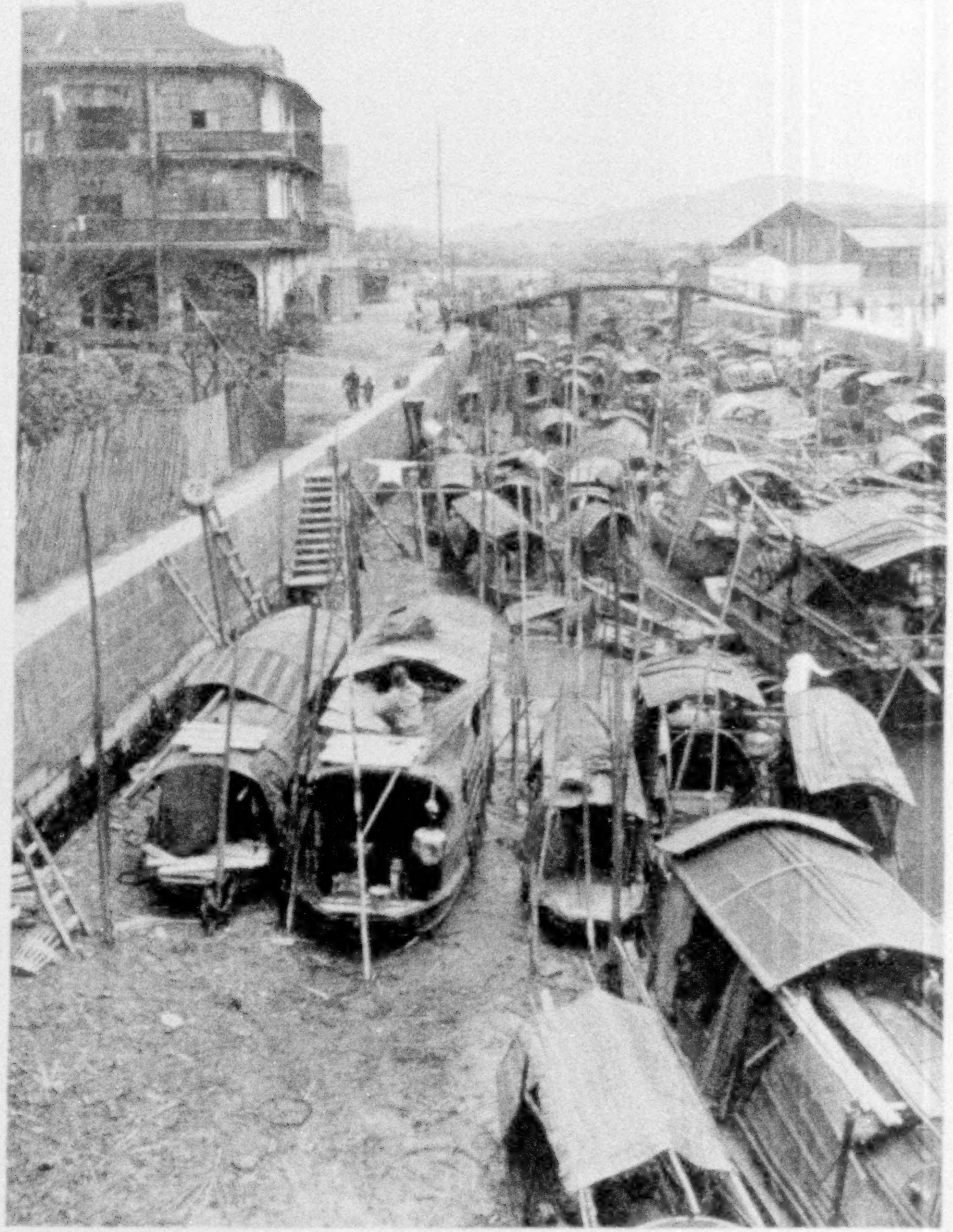
THE CEASELESS TIDE OF COMMERCE ANIMATES SOUTHERN CHINA'S POLITICAL CAPITAL

The republican attitude of the Cantonese led to this wealthy city becoming a stronghold of the progressives after the revolution of 1911 overthrew the Manchu dynasty. However, it is a capital of commerce as well as of politics, and, with the exception of Macao, is the oldest Chinese port opened to foreign trade.



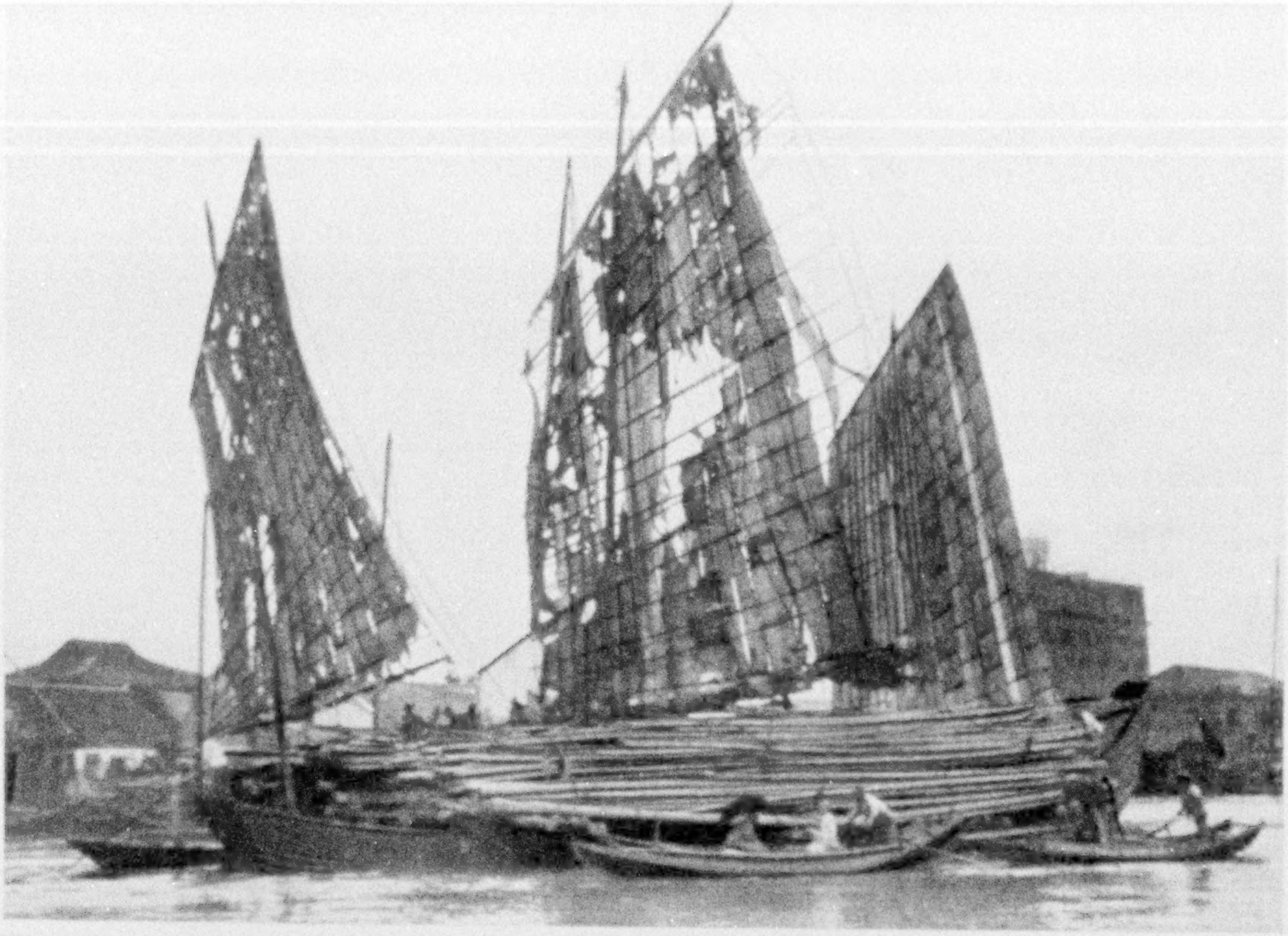
THE PHŒNIX, EMBLEM OF IMMORTALITY, SAFEGUARDS THIS BOAT

With such a symbol on his craft, the boatman has hope of a safe and happy ending to his mortal existence in case he goes to a watery grave, where his body cannot be buried with his ancestors. The large characters in the center mean "The True Source," a euphonious expression.



NEARLY ONE-FOURTH OF THE CANTONESE HAVE HOMES ON THE WATER

Thousands of boats in some of the canals connecting with the Pearl River are affected by the tide. They anchor near the shore, floating at high tide and settling on mud flats at low water, when the boat people must ascend the ladders if they have business on land.



A JOB FOR THE SAILMAKER

Many Chinese sailors maintain that perforated sails are sometimes more effective than whole canvas, and their contention is supported within certain limits by experienced skippers of other countries.

his fat ankles to keep him from falling into the stream, while occasionally one had a gourd tied to the waist, affording a larger range of deck action and buoyancy in the water in case of a tumble.

Keeping house on a Chinese boat has its compensations. In Canton a wife does not send her husband to market as she might elsewhere; market boats come to the gunwale of her home, selling rice, vegetables, clothing, medical supplies, and even trinkets to satisfy her vanity. Cooking is simple, dishwashing is hardly to be thought of, and household duties consist of sewing and mending and calling one's husband to mop the deck.

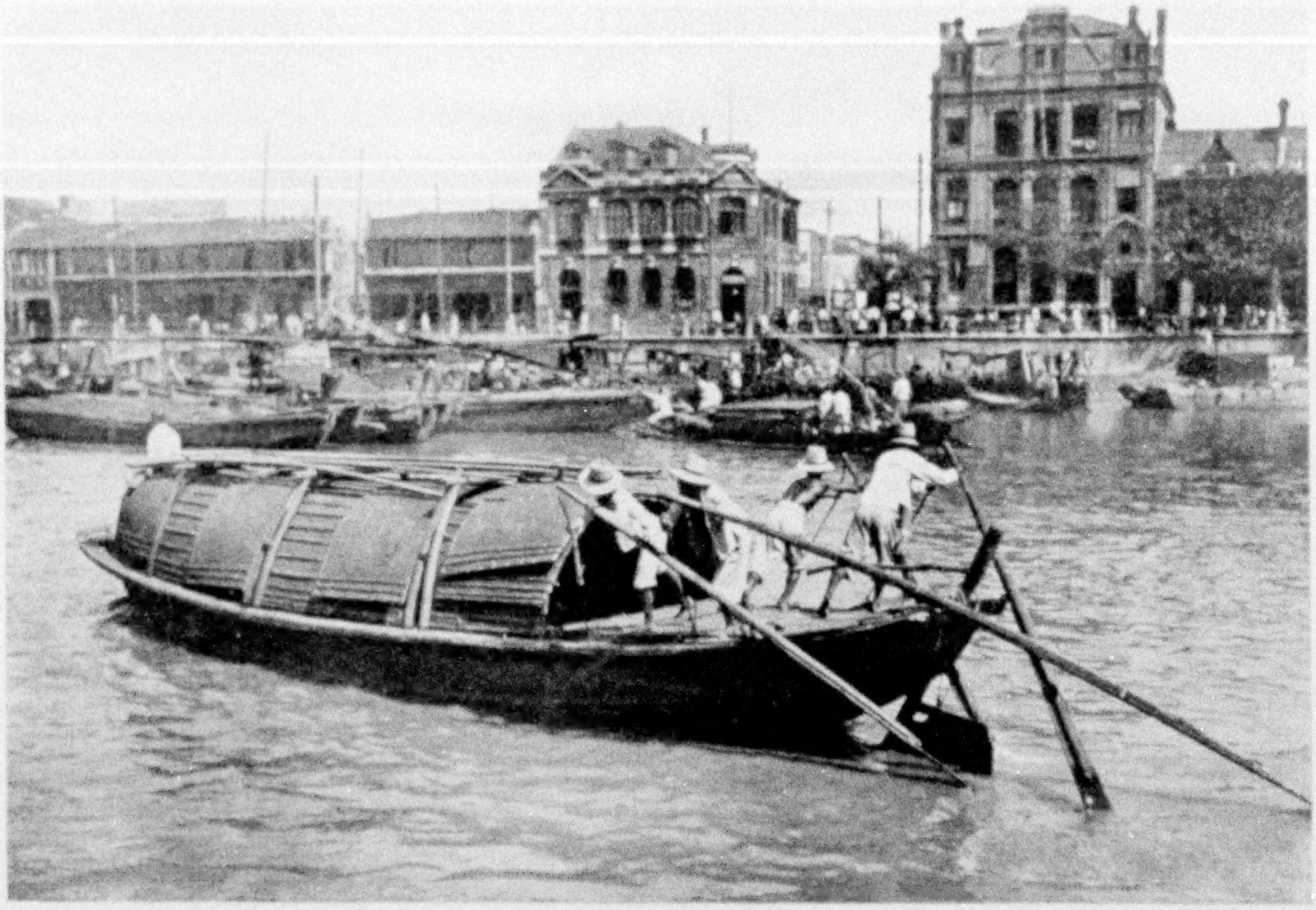
While legally a Chinese wife may have the status of an inferior, her wits can often circumvent the law. If she is a subordinate, it is far more to her mother-in-law than to her husband. Convincing evidence of this fact was given me by my father, who was called a number of times to the bedside of brides and young mothers who had taken opium with suicidal intent to escape from the mother-in-law instead of from the husband.

Many mothers-in-law hesitate to raise a domestic typhoon by provoking a daughter-in-law who has the gift of abusive language. Concubinage, which is called "sipping vinegar," is practically unknown to the boat life of China.

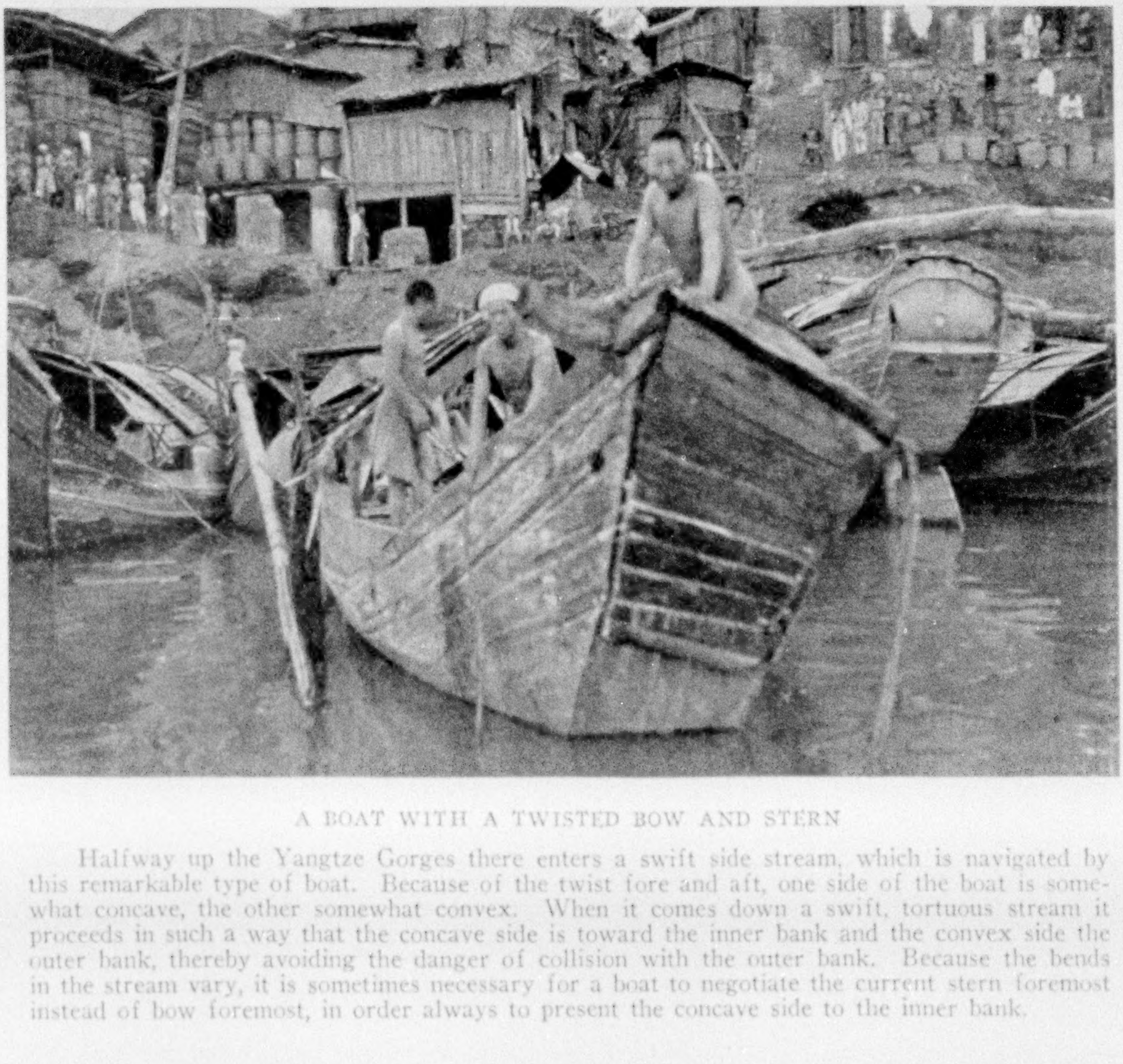
HUSBANDS LOOK ON WHILE WIVES BATTLE

In forming matrimonial engagements the initiative is taken by the family to which the boy or young man belongs. The negotiations may be direct or through a "go-between," generally a woman who makes this her profession. If the girl's parents entertain the proposal, they may consult a fortune teller, even as the landsmen do.

The fortune teller determines upon an auspicious day. But if, for example, the girl is born on the day dedicated to the goose and the boy on that of the fox, negotiations terminate, because from time immemorial foxes have eaten geese.

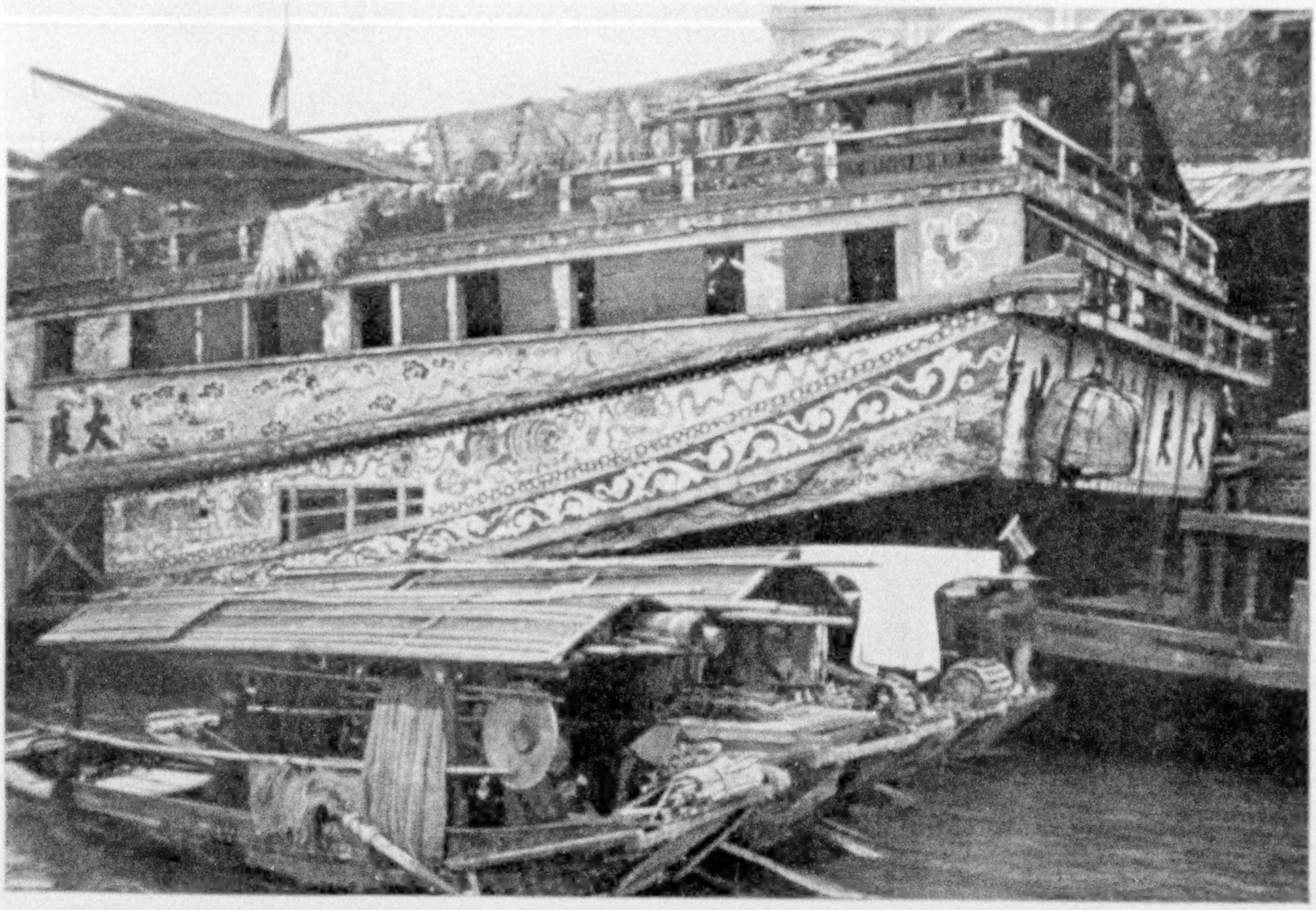


SPEEDING UNDER FOUR MANPOWER

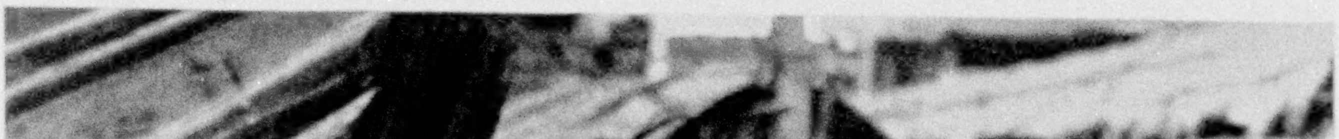


A BOAT WITH A TWISTED BOW AND STERN

Halfway up the Yangtze Gorges there enters a swift side stream, which is navigated by this remarkable type of boat. Because of the twist fore and aft, one side of the boat is somewhat concave, the other somewhat convex. When it comes down a swift, tortuous stream it proceeds in such a way that the concave side is toward the inner bank and the convex side the outer bank, thereby avoiding the danger of collision with the outer bank. Because the bends in the stream vary, it is sometimes necessary for a boat to negotiate the current stern foremost instead of bow foremost, in order always to present the concave side to the inner bank.



DECORATIONS EVIDENCE THE BOATMAN'S AFFECTION FOR HIS CRAFT



THE BALANCED RUDDER OF THE ORIENT

This device, used for centuries in the East, was not known to Western navigators until comparatively recent times. In China the rudder is so balanced that a helmsman can with great ease steer a sea junk or river boat of any length up to 120 feet. The area in front of the rudder post is much smaller than that behind, as the initial impact of the stream is much stronger on the front part, which receives the current and diverts it.

THE ROMANCE OF SAIL STILL HAUNTS THE CHINA SEA

Chinese sails are legion in variety and shape, and may be of straw, reed, or bamboo matting, or ordinary sailcloth. They are frequently so extensively patched that the new material almost equals the original in area.

In Chinese family life there is a fairly clear division of authority, so that many unnecessary quarrels are prevented. I know of one occasion when the wife of a boat master and the wife of his son decided upon an open rupture, even to the extent of hurling empty rice bowls at each other's head — a great extravagance in China. Father and son, convinced that it was none of their business, and that the sane course was for the women to settle their own differences, stood behind their respective mates and meekly swept up the china fragments of the family quarrel. Better to lose a few bowls and have ultimate peace.

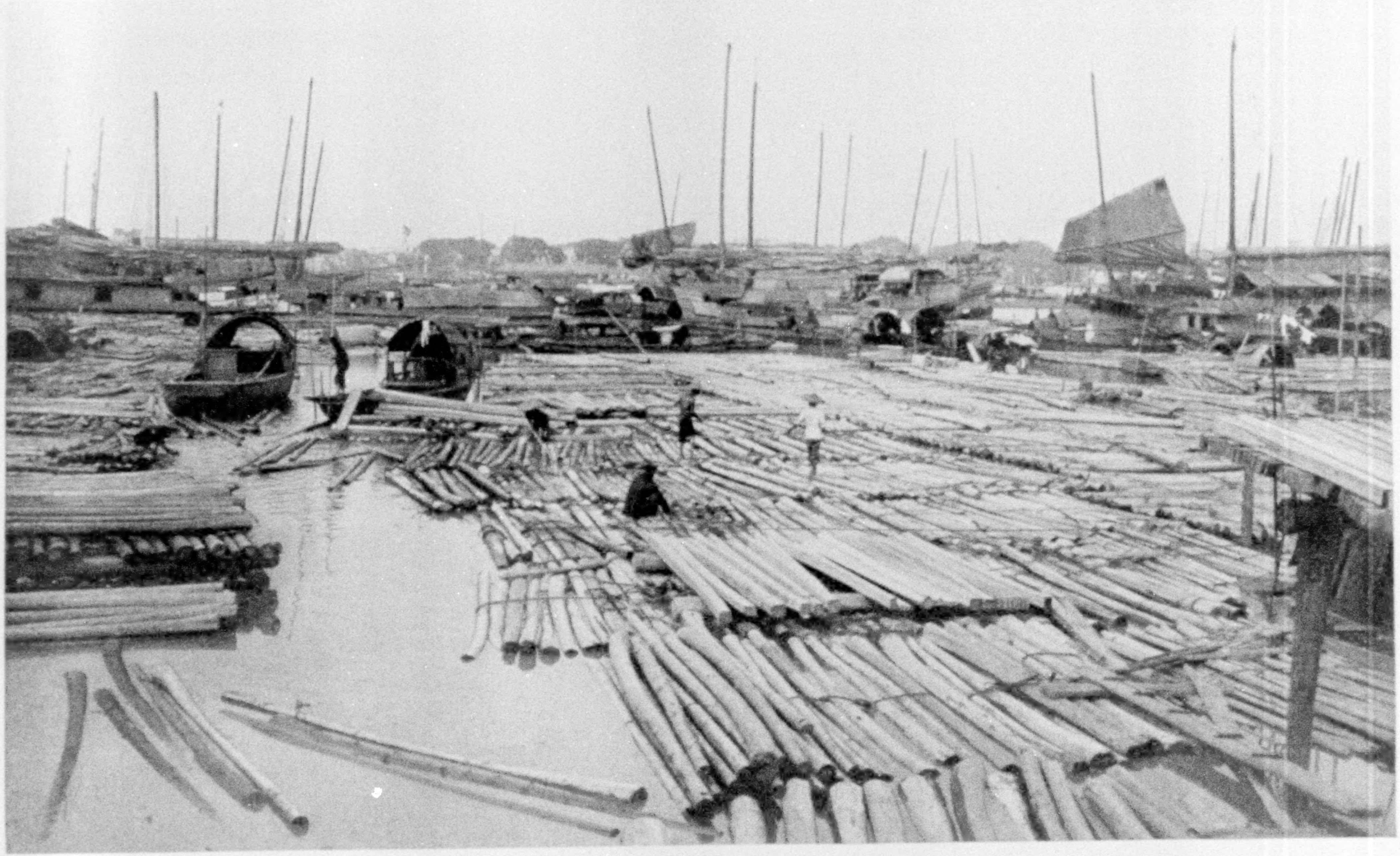
MEN ALLOWED TO DROWN UNAIDED FOR FEAR OF WATER DEMONS

It is this sense of tolerance, and even tolerance of intolerance, that awakens the admiration of the nervous, testy, and high-strung Occidental.

That Chinese boatmen believe implicitly in the power of water demons was convincingly demonstrated to me one night when I was sleeping soundly on the banks of the Ningpo River. I was half awakened by the frantic cries of men a short distance offshore, but was in such a torpor of sleep that I did not realize the significance of the tumult. Finally the calls subsided and all was silent.

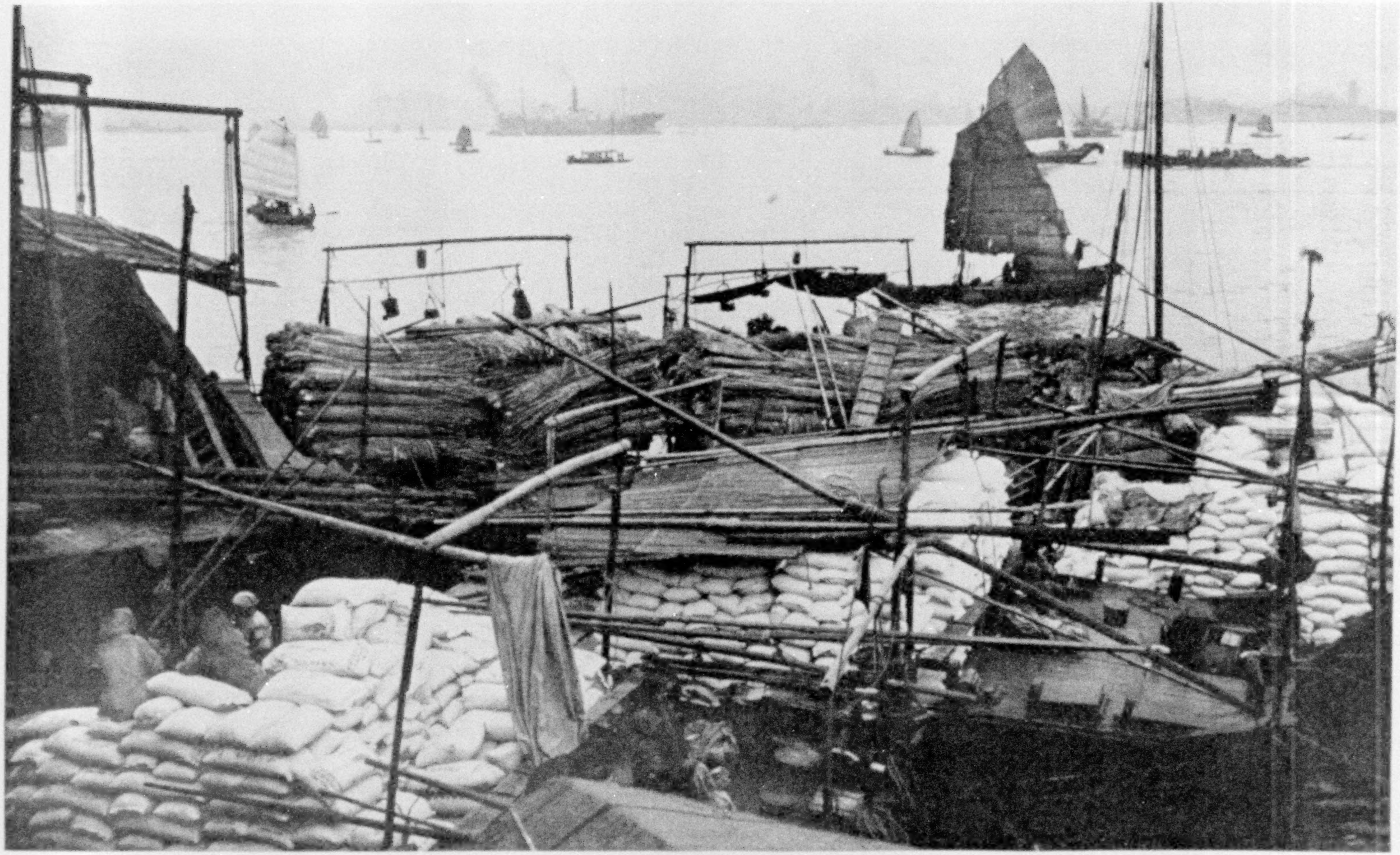
The next morning I received the explanation of the disturbance from the ferryman who lived next to my residence. A strongly built Ningpo boat had come down the river, laden almost to the gunwale with a cargo of stone. It collided with another boat in the darkness and sprang a leak. None of the crew could swim, so they called frantically to passing boats and to the ferrymen, a number of whom were on night duty.

No one attempted a rescue. The damaged boat finally careened and sank, bringing death to its helpless, despairing crew. Men who might have brought succor were



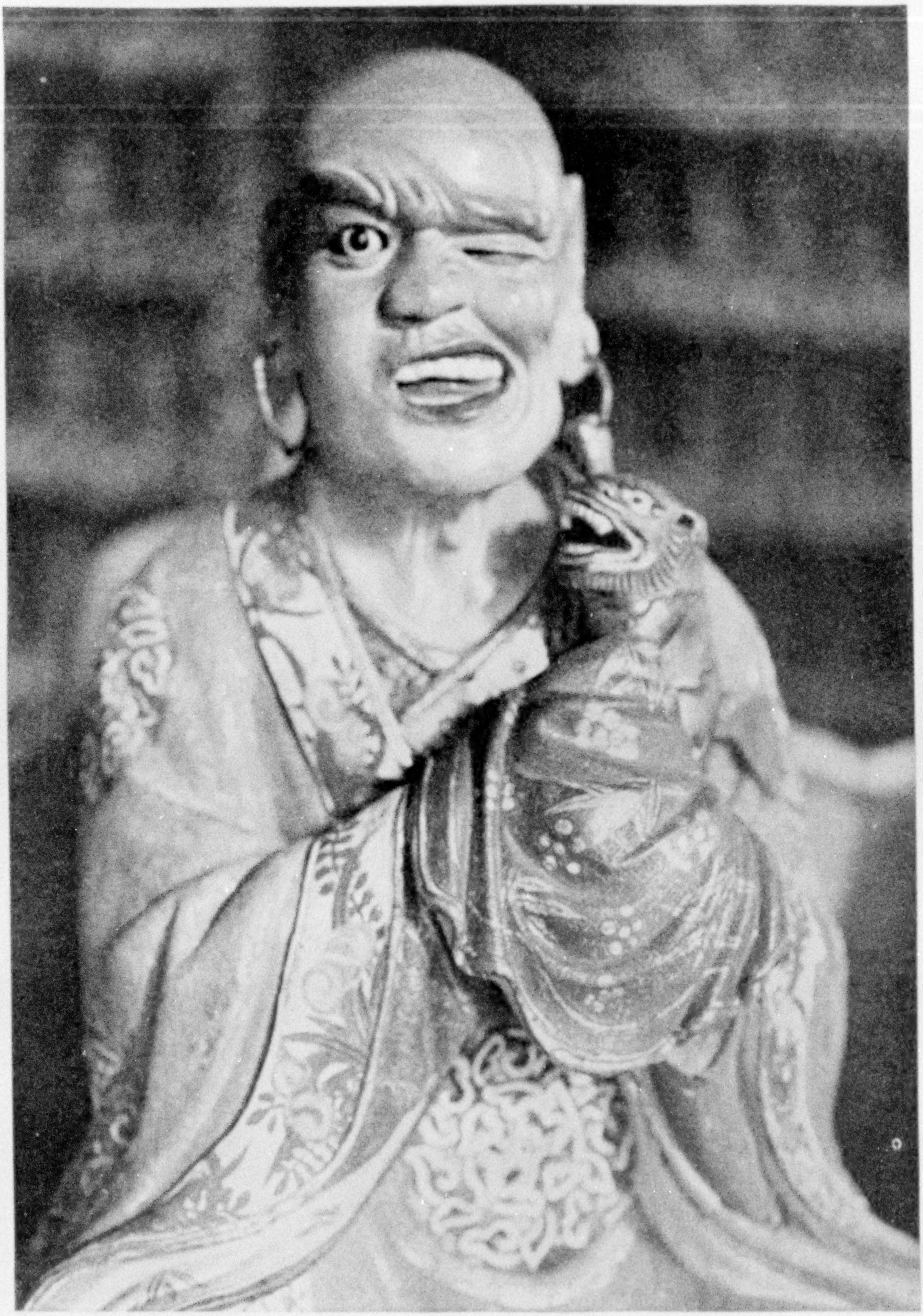
ACRES OF RAFTS COVER PORTIONS OF THE PEARL RIVER IN THE VICINITY OF CANTON

Though China has cut her trees ruthlessly (see, also, page 638), pine forests are still found in the interior, especially south of the Yangtze. The timber is formed into immense rafts, and sculled downstream—dangerous work during heavy rains and on flooded streams. A long string of logs may also carry a number of men, women, and children, with their shelters.



EVERY SEAFARING NATION FLIES ITS FLAG IN HONGKONG'S HARBOR

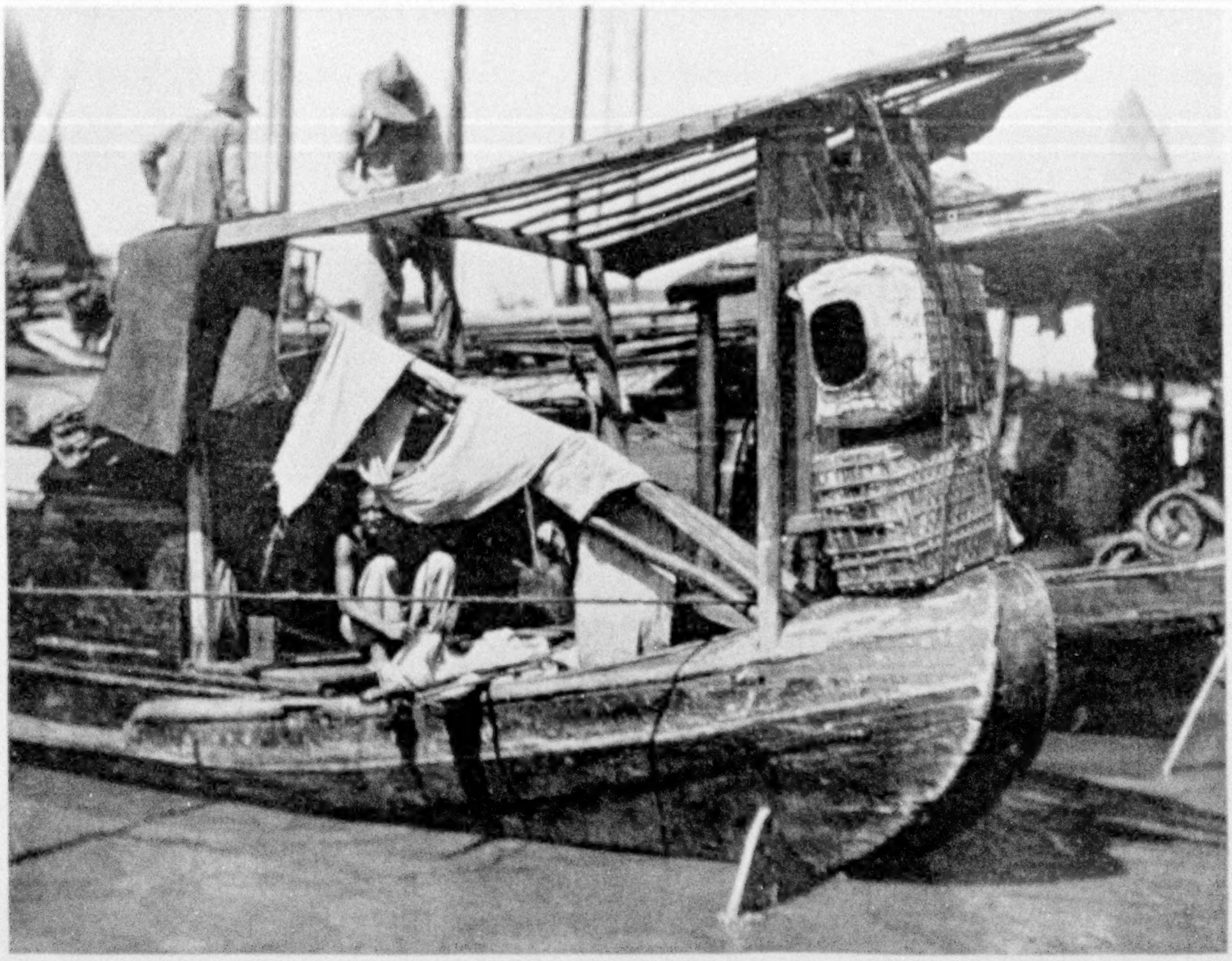
The fleets of passenger boats and merchantmen that visit this island Gibraltar every year range from ocean liners of great tonnage to mosquito-swarms of native junks and sampans, for Hongkong is not only the gateway to southern China, but the key to ocean communication between Europe and the Far East and a port of call for many world-girdling steamship lines.



Photograph by J. T. McGarvey

THE GOD OF ANGER WINKS AND LEERS IN A PEKING TEMPLE

Much of that system of magic known in China as Taoism is in reality an attitude assumed toward gods and spirits with the desire to obtain benefits or to avert calamities. This has given rise to manifold superstitions based upon a belief in the good or evil influences of departed spirits (see text, page 677).



THE BOATMAN HAS HIS OWN MAKE OF "OIL CAN"

On the stern are two empty oil baskets made of lightly woven bamboo lined with oiled paper. They have a capacity of 10 to 15 gallons.

afraid of the water demons, who were supposed to have caused the calamity. The time had come for the unfortunate crew to die and any attempt at rescue would have kindled the wrath of the demons, thereby bringing a like death to the would-be saviors.

Not only must one beware of water demons, but of the spirit of a man who has been drowned by a demon, for it may hover near the place of tragedy and wreak vengeance on those who fail to show respect to the memory of the dead.

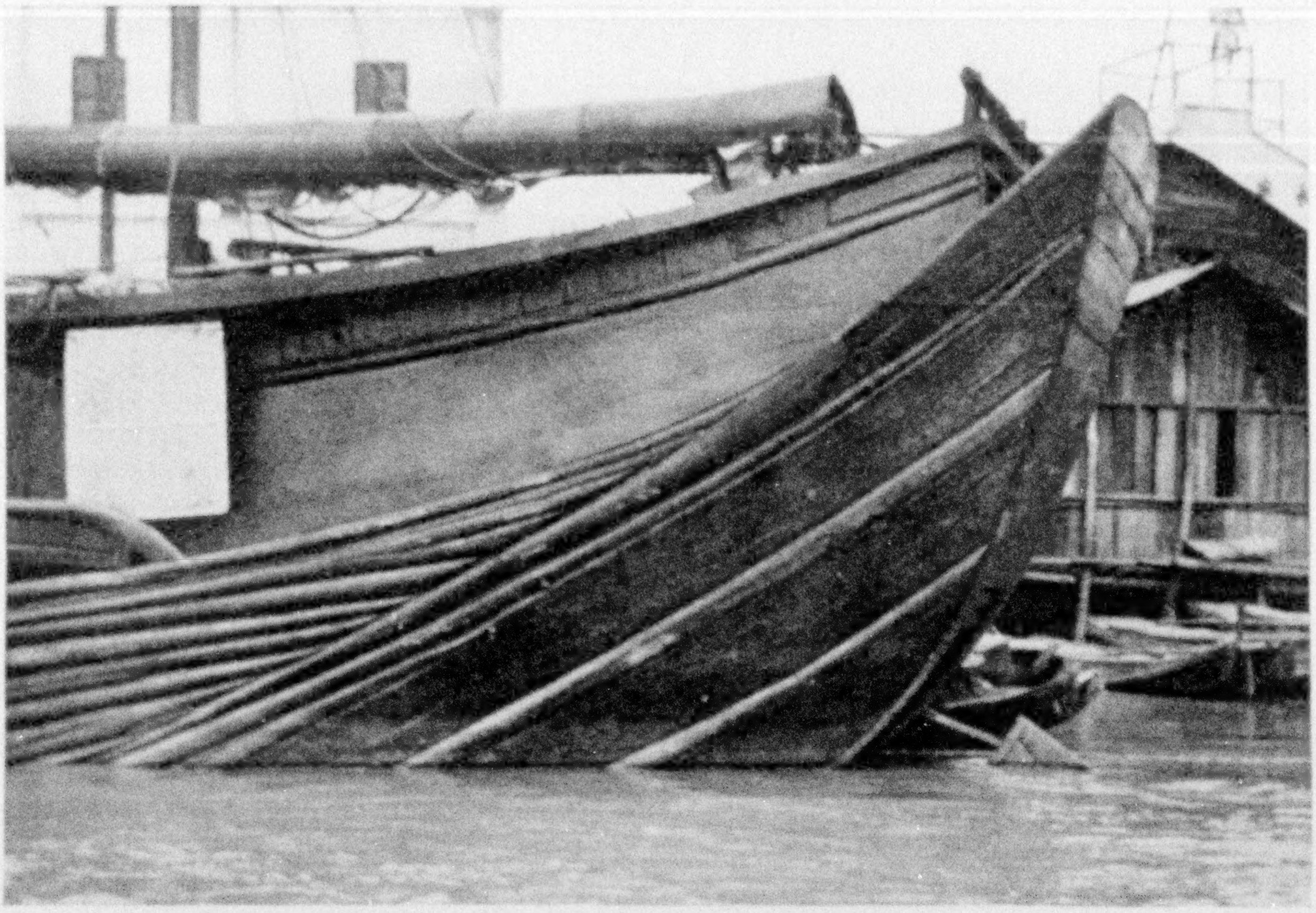
In the Province of Fukien there is a place called "The Eleven Pools"—a magnificent precipitous chasm into which boatmen say the sun, even in summer, cannot shine for more than an hour a day. In this chasm is a shrine to the memory of a mandarin who was wrecked and lost his life. As the boatmen pass, they pull up to the rock and burn a few incense sticks to propitiate the spirit of the dead. I have seen similar shrines in other parts of China, as far west as the Tibetan borderland, near the Black Lama region.

CHINESE BOATS MUST HAVE EYES

"No got eye, no can see; no can see, no can savvy" (savvy meaning to understand). This is the philosophy of the boat eye as given by a Chinese boatman in pidgin English. These eyes are characteristic features of the junks and boats in and about Ningpo; also in some of the smaller ports to the south (see page 683).

A boat is supposed to have a presiding spirit, and that spirit needs not only a hull for floating, but eyes with which to see its course, to avoid the dangers of rocks, shoals, and canal banks. I have had some amusing experiences in this connection, when it was evident that any disrespect to the boat's eyes, or any attempt to cover them, was resented by the boatmen.

The Dragon Boat Festival in China is a counterpart of our modern regattas.



BUILT TO WITHSTAND COLLISIONS

The horizontal beams of the hull are joined at their ends to a diagonal beam. By keeping the former round, as in their original shape, rather than cutting them down, more strength is retained.

Frequently there are two clans which compete with each other in a test of speed. Hundreds of attendant boats are gaily decorated with bunting; the crowds, in holiday attire, watch the races with the zest of a Western crowd and join in the celebration by holding feasts on the following day, banqueting the winners and sometimes giving prizes.

The festival is celebrated in deltas, rivers, and even small canals, on the fifth day of the fifth moon, and dates back nearly twenty-five hundred years.

The Dragon Boats are often owned by temples, and after each festival are buried in the earth, where they remain until the following year, when they are dug out and repainted for another race.

The Dragon Boat, whose direct antecedent probably was the Malay proa, is from 20 to 100 feet in length. On the bow is a carved dragon head, the body of which is continued on each side, either by additional carving or by a colored design.

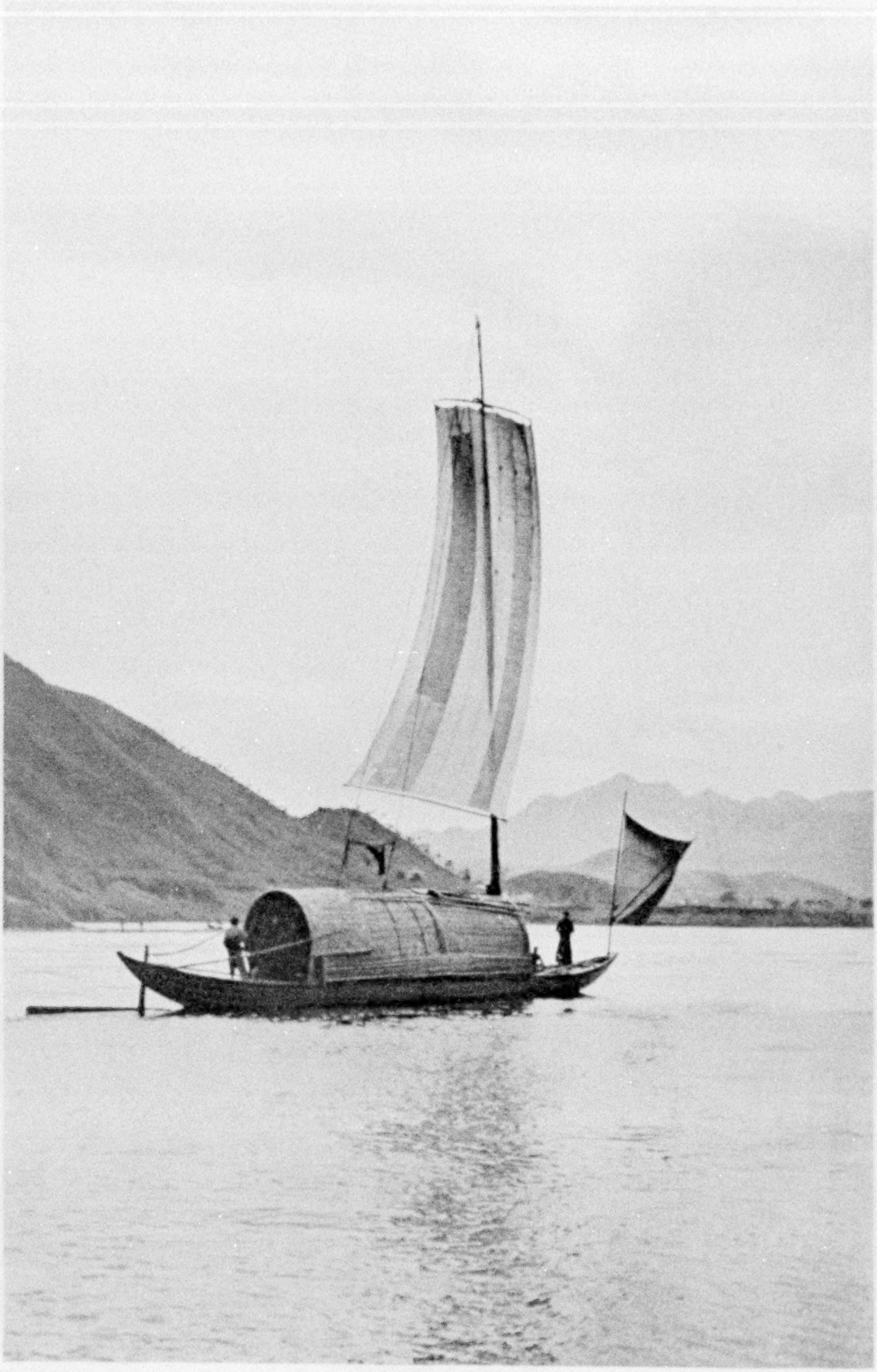
In addition to their ordinary cargoes and passengers, Chinese boats annually transport a vast army of travelers who make pilgrimages at certain seasons of the year to the innumerable Buddhist and Taoist temples.

At the terminal of the Grand Canal at Hangchow I have often seen hundreds of boats with thousands of pilgrims on their way to the monasteries of that city, near the famous West Lake (see illustrations, pages 640 and 644), and large fleets of junks carry pilgrims to the great center of worship on the island of Puto, in the China Inland Sea, south of Shanghai (see map, page 625).

Here, at the height of the pilgrim season, there may be as many as 5,000 Buddhist priests, who have come from all parts of China. In my boyhood I have seen throngs traveling by boat in unbroken procession for three days and three nights.

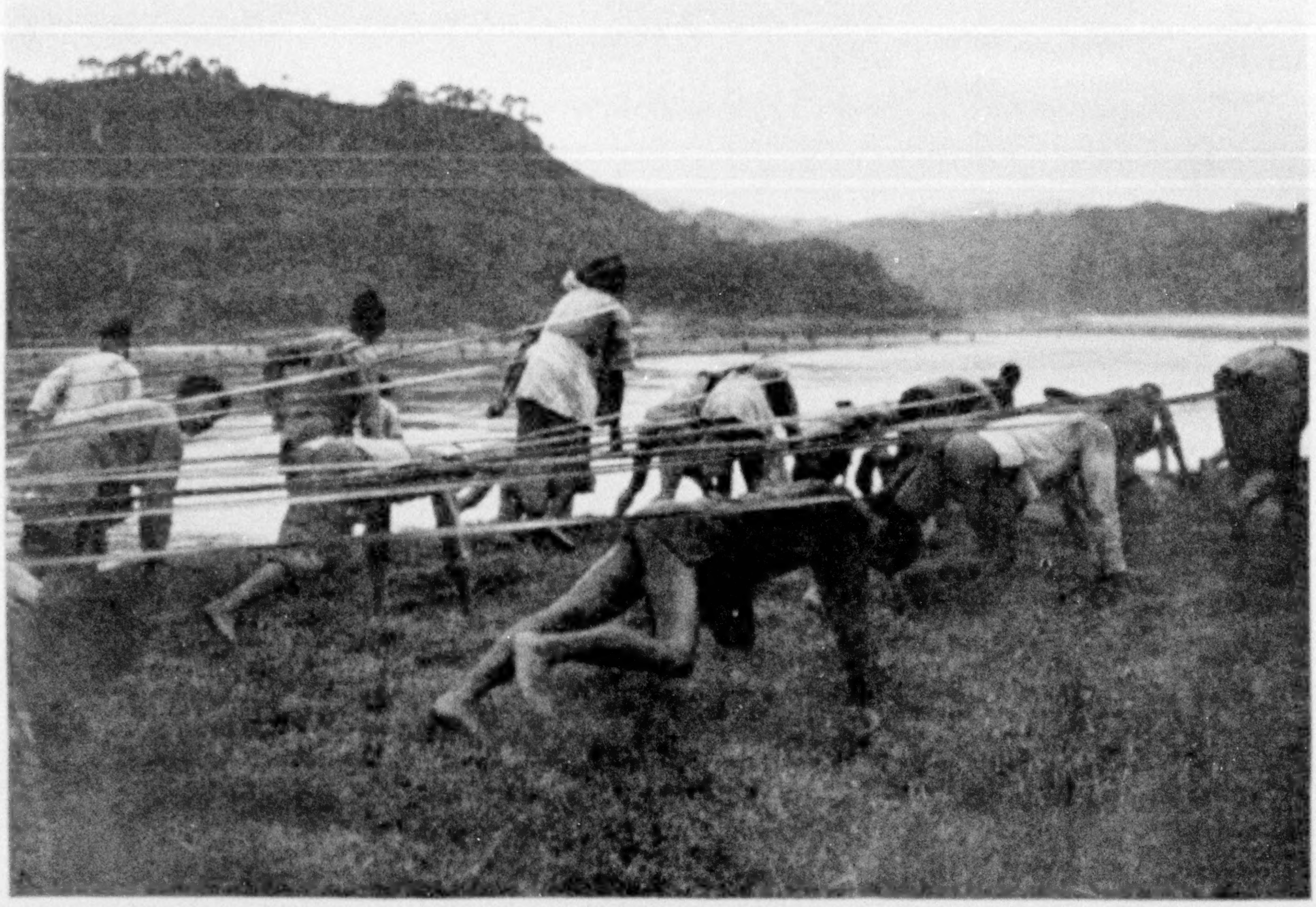
CATCHING FISH WITH SIEVES AND DIKES

Fishing is one of the great occupations of boat dwellers. For summer fishing the boatmen have recourse to thousands of icehouses along the coast. These are deep excavations, with the earth piled high on all four sides and covered with a



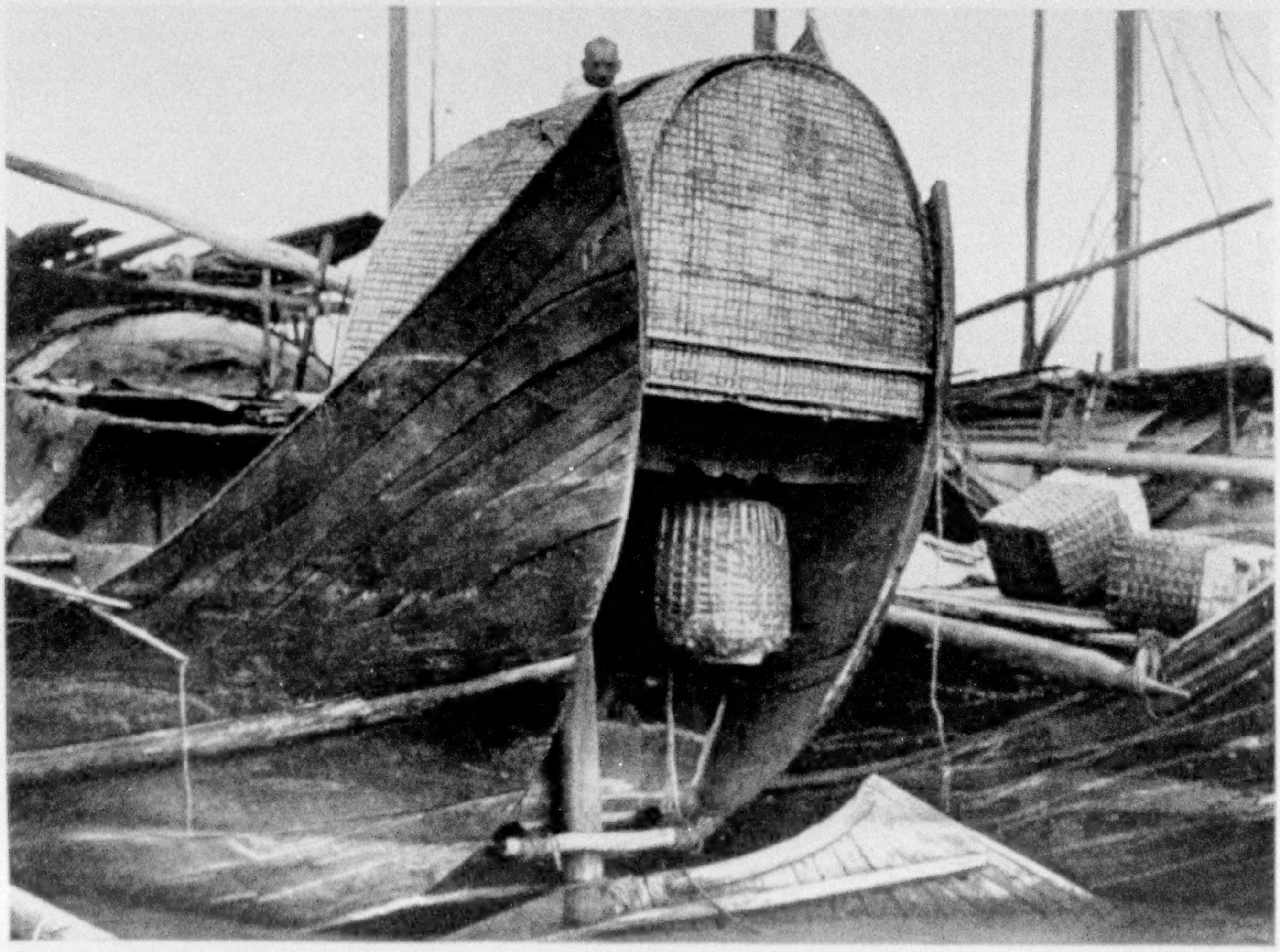
THIS JUNK CARRIES ONLY ONE CARGO—BRUSHWOOD

On the Tsientang River most craft of this size are engaged in the transport of brushwood for use in flood-prevention measures. The fagots are placed between a rampart of posts and a stone dike in order to protect the latter's vulnerable points from the onslaught of the Hangchow tidal bore (see page 645). If anyone uses the brushwood for fuel he is imprisoned. This type of junk is made of heavy lumber, with a keel so curved that the vessel rides the trough of a large wave with ease.



Photograph by Maynard Owen Williams

A CONTEST BETWEEN NAKED THIGH AND RIVER CURRENT IN THE YANGTZE GORGES



THE FAMILY FISH REFRIGERATOR

When a boatman buys live fish out of a tub, either from a market on land or from a passing fish boat, he places them in this basket, which he lowers into the stream, thus keeping his food in live storage. Note the balanced rudder (see, also, page 672).

DRYING SAIL AFTER THE VOYAGE: ABERDEEN, NEAR HONGKONG

The only means of approach to the shore is a small punt like the one in the foreground.

thick roof of straw. Sea-going fishing junks fill their holds with ice from these storehouses and in the heat of summer go out for a week's cruise.

Perhaps the most unusual method of catching fish in China is the employment of the fishing dike, which is several miles long, with a succession of sharp zigzag curves, their apexes pointing out to the sea. At each apex is a sieve.

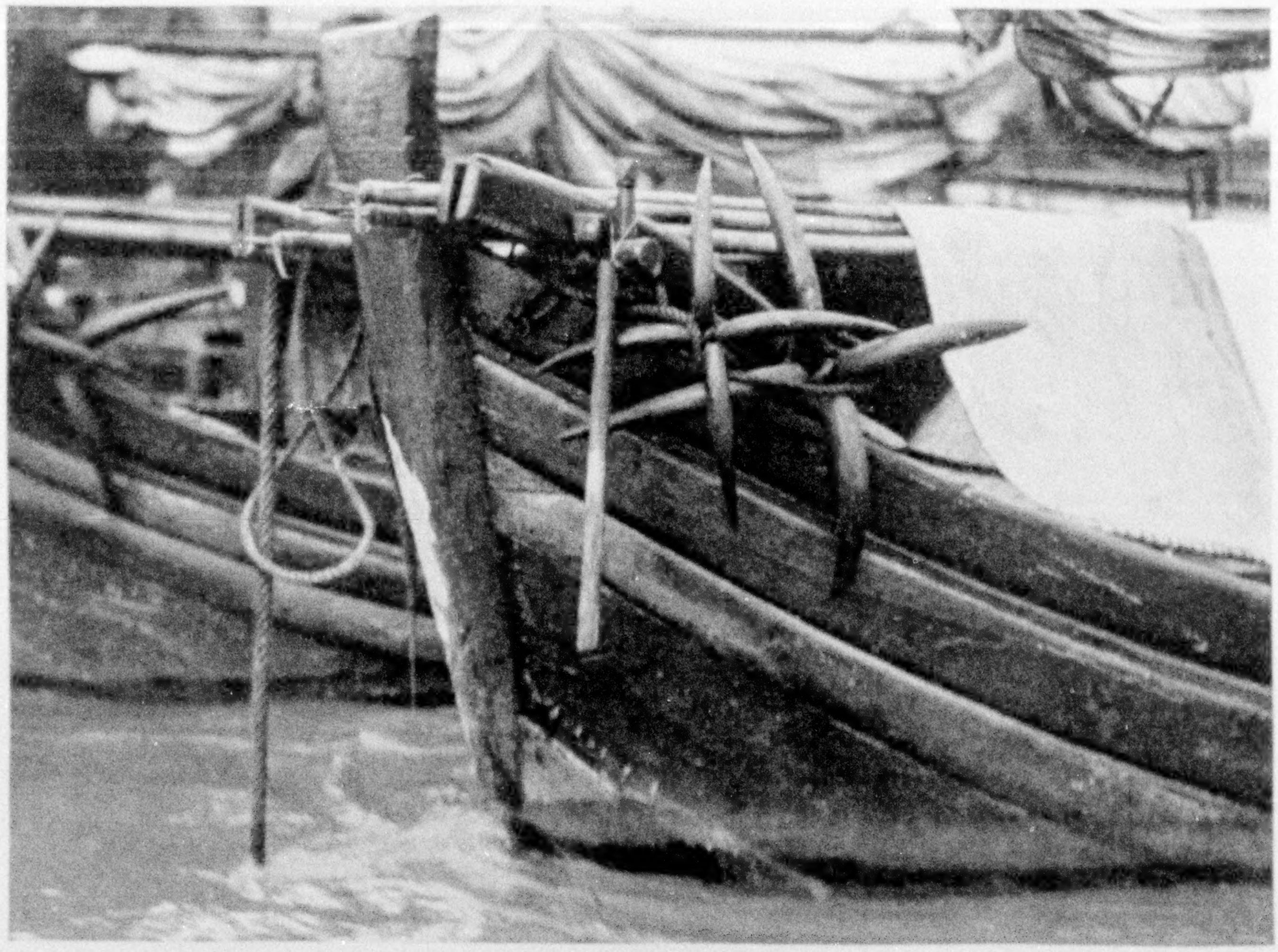
The high tides go over the dikes and cover vast areas of beach behind them, and when the waters recede sufficiently the impounded flood is filtered through the sieves and immense quantities of fish are caught.

JUNK RIDES A TYPHOON LIKE STORMY PETREL

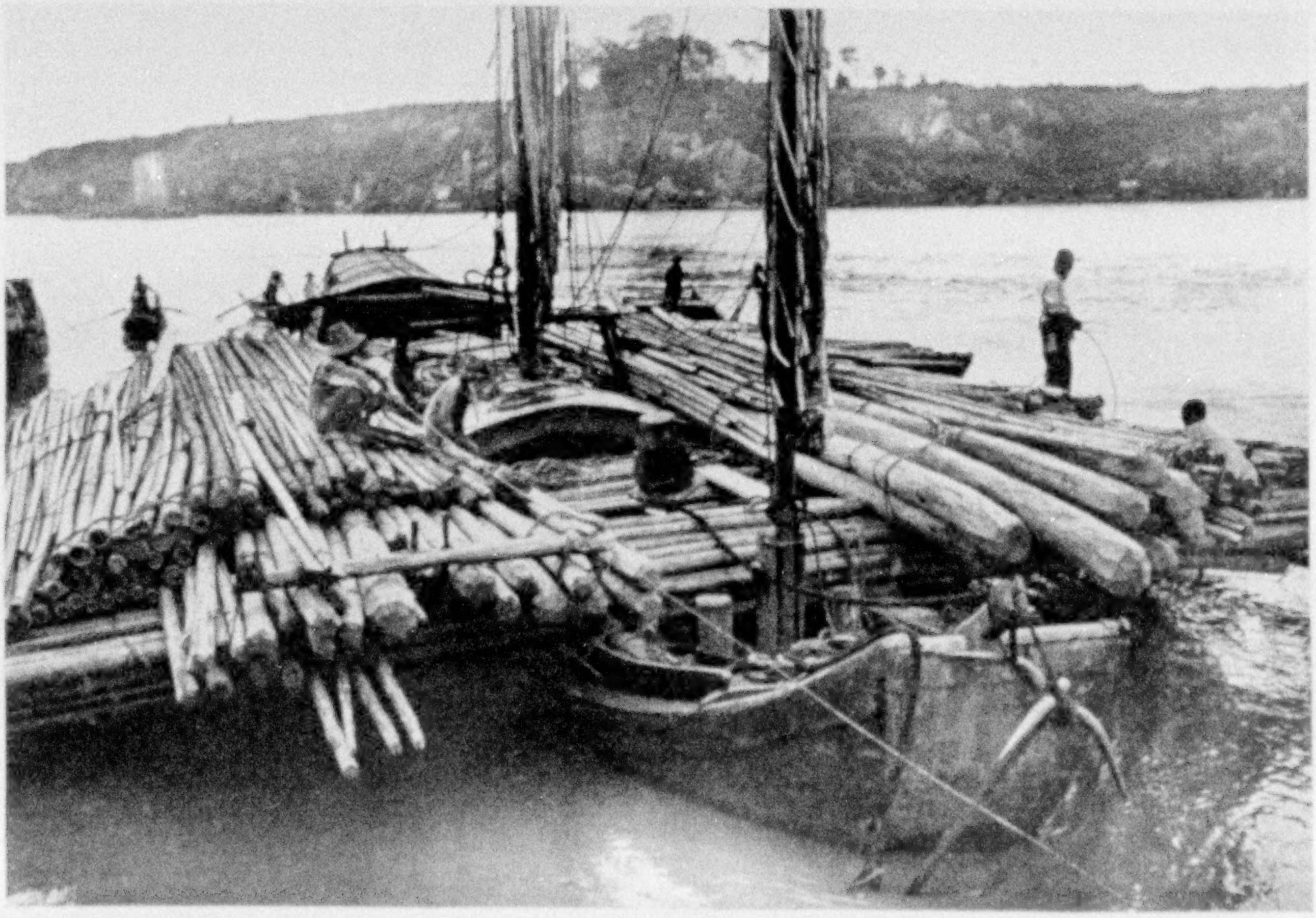
The fishermen go out every twelve hours with their rough wheelbarrows to the sieves and shovel up the waiting fish, which are sold to boatmen to be transported to the markets.

It was in connection with one of these remarkable fishing dikes that I had an exceptional experience. I was on my way to the island of Puto, to attend the second birthday celebration of the Goddess of Mercy (see illustration, page 701). This goddess has three birthdays annually, for the convenience of pilgrims and for greater aid to the temple. The Inland Sea was glassy and covered with the glorious sheen of sunset. The sky was clear, nor was there the slightest indication of an approaching storm.

Because the Goddess of Mercy always celebrates this particular birthday with a terrific typhoon, to show her power and to instill proper reverence for her person among those who go down to the sea in

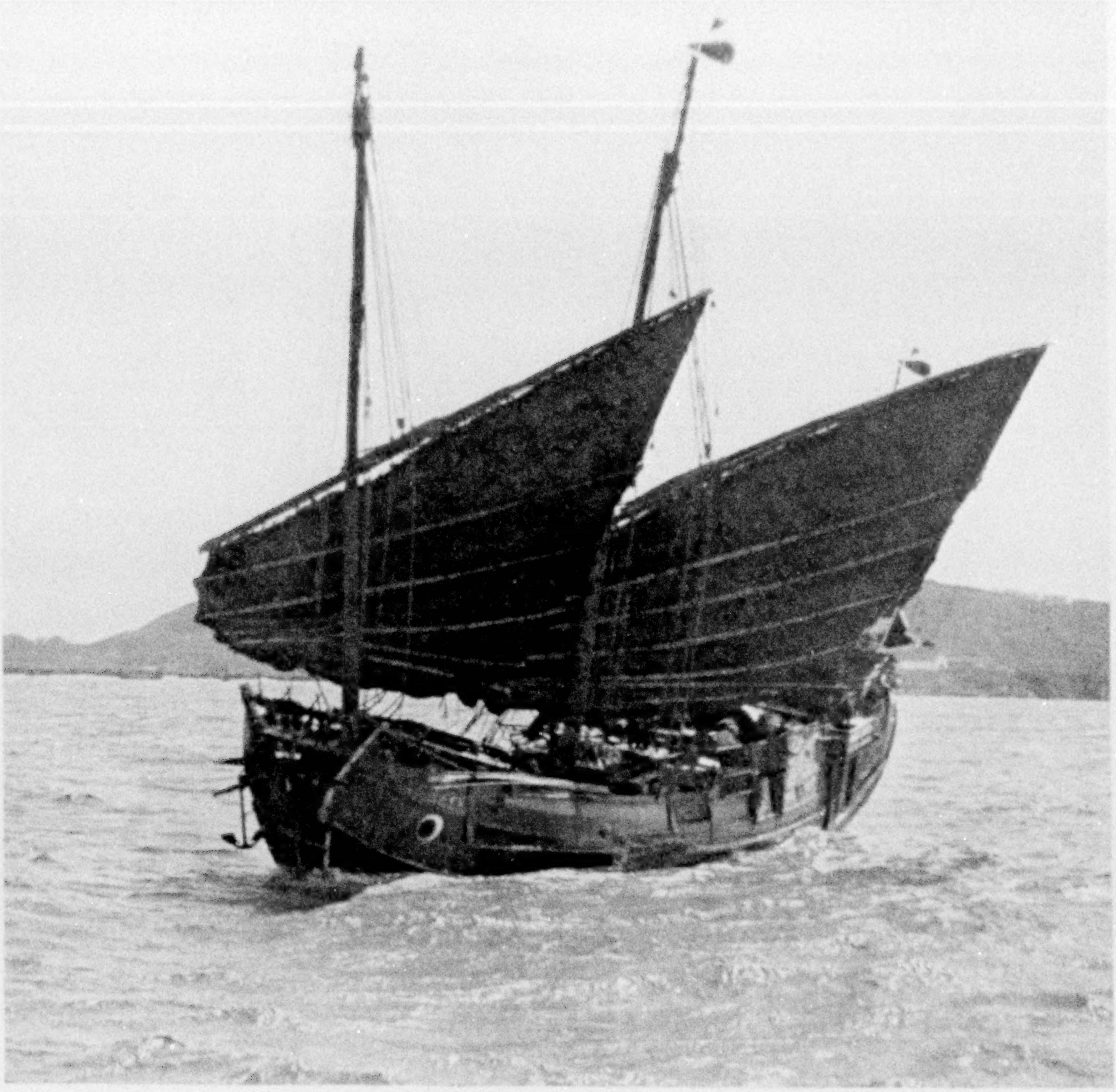


THE CHINESE ANCHOR IS USUALLY FOUR-PRONGED



A WHOLE RAFT AS CARGO

Only the buoyancy of the floating wood on either side prevents this boat from capsizing.



THE NINGPO JUNK IS A GRACEFUL AND SEAWORTHY CRAFT

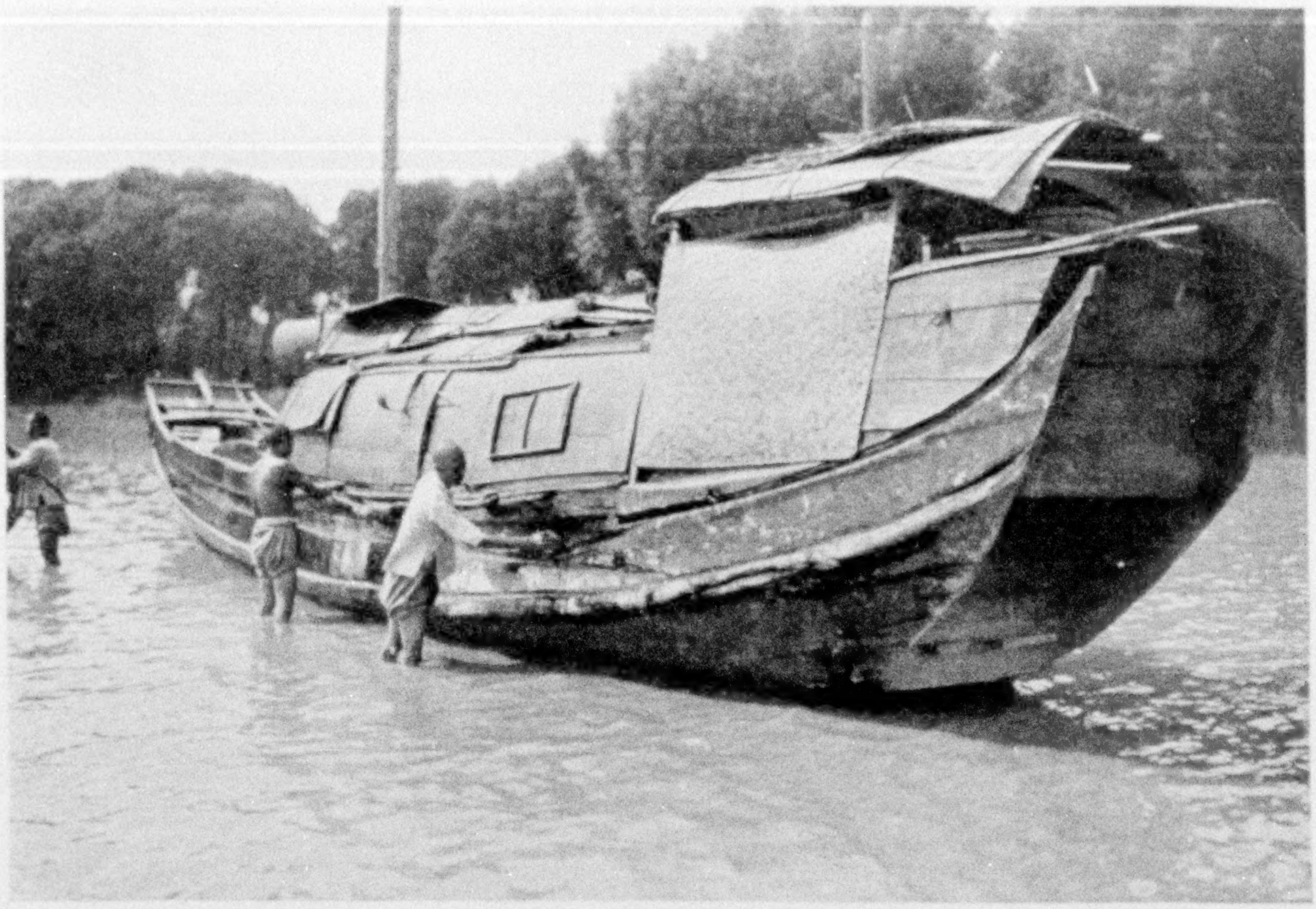
It is duck-shaped rather than fish-shaped, and is able to plunge into the trough and to rise again on an almost vertical wave with far less danger of being submerged than any Western craft double its size. It will carry heavy sails and cargo, is speedy, and can be sculled in calm weather. Note the vessel's eye (see, also, text, page 677).

ships, the head boatman warned us to seek a small harbor for the night, as the storm would surely come the following morning. His advice was disregarded, and the next day, long before dawn, in a moment of time, threatening clouds overcast the sky and the sea was churned as by a demon of wrath.

We were a full mile from shore. The breakers came in upon us in high walls of foam, making our sturdy junk quiver from stem to stern. From the trough of a wave, with a high breaker hanging over us, our craft would climb the almost vertical wall of water and in an instant we would be on its crest, surrounded by tossing foam, ready to plunge downward again.

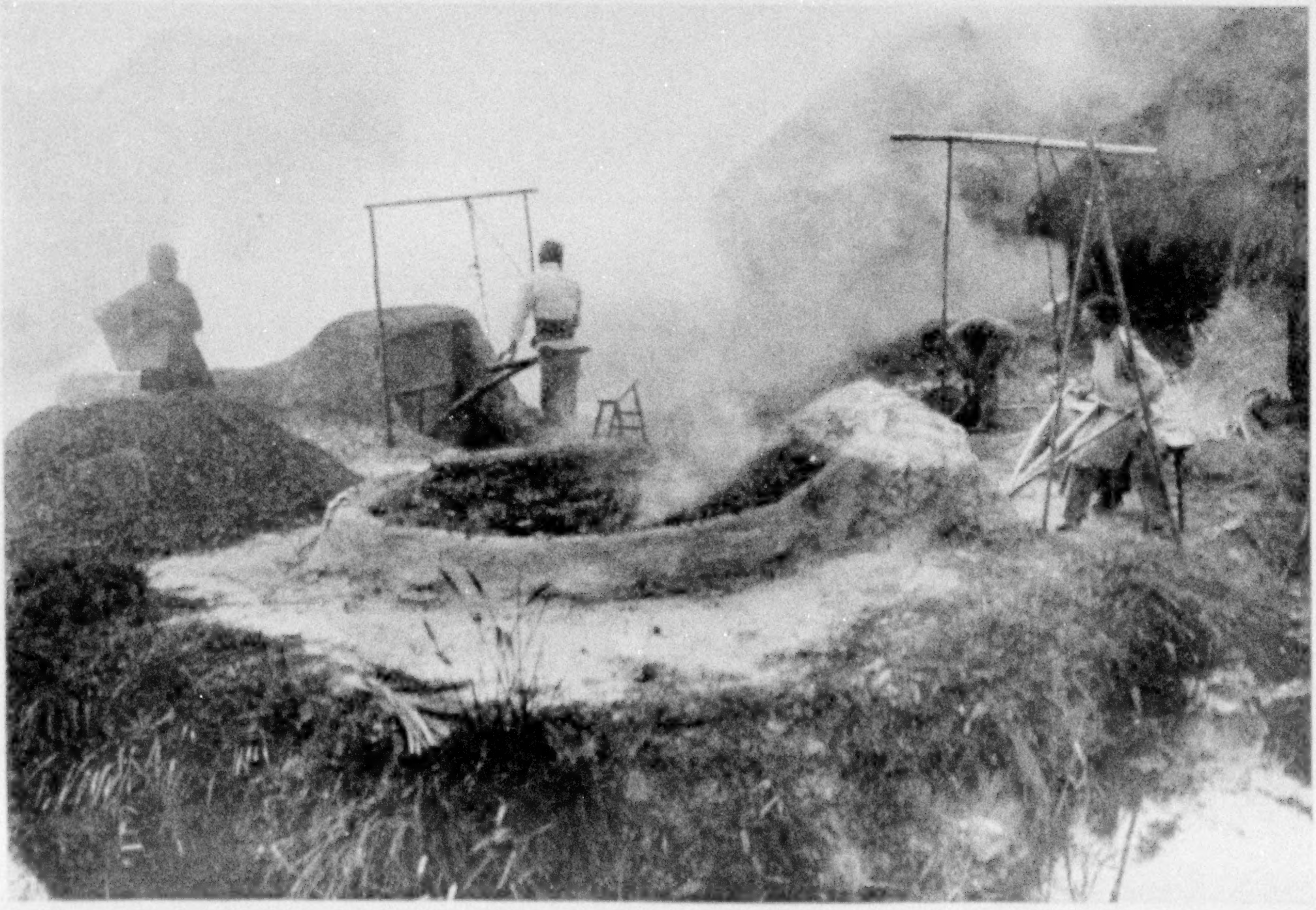
An Occidental craft of treble the size would have been engulfed; but the junk, with its half-sawn logs in the hull, with its spoon-shaped bottom, its light bow and heavy stern, was able to mount as if on wings and defy the elements as does the stormy petrel.

After a half day of this experience our windlass was torn away and we were carried upon a submerged fishing dike. Time and again we were hurled upon the obstruction, and each time it seemed as if our vessel surely would be broken or capsized. We stood on deck with a small



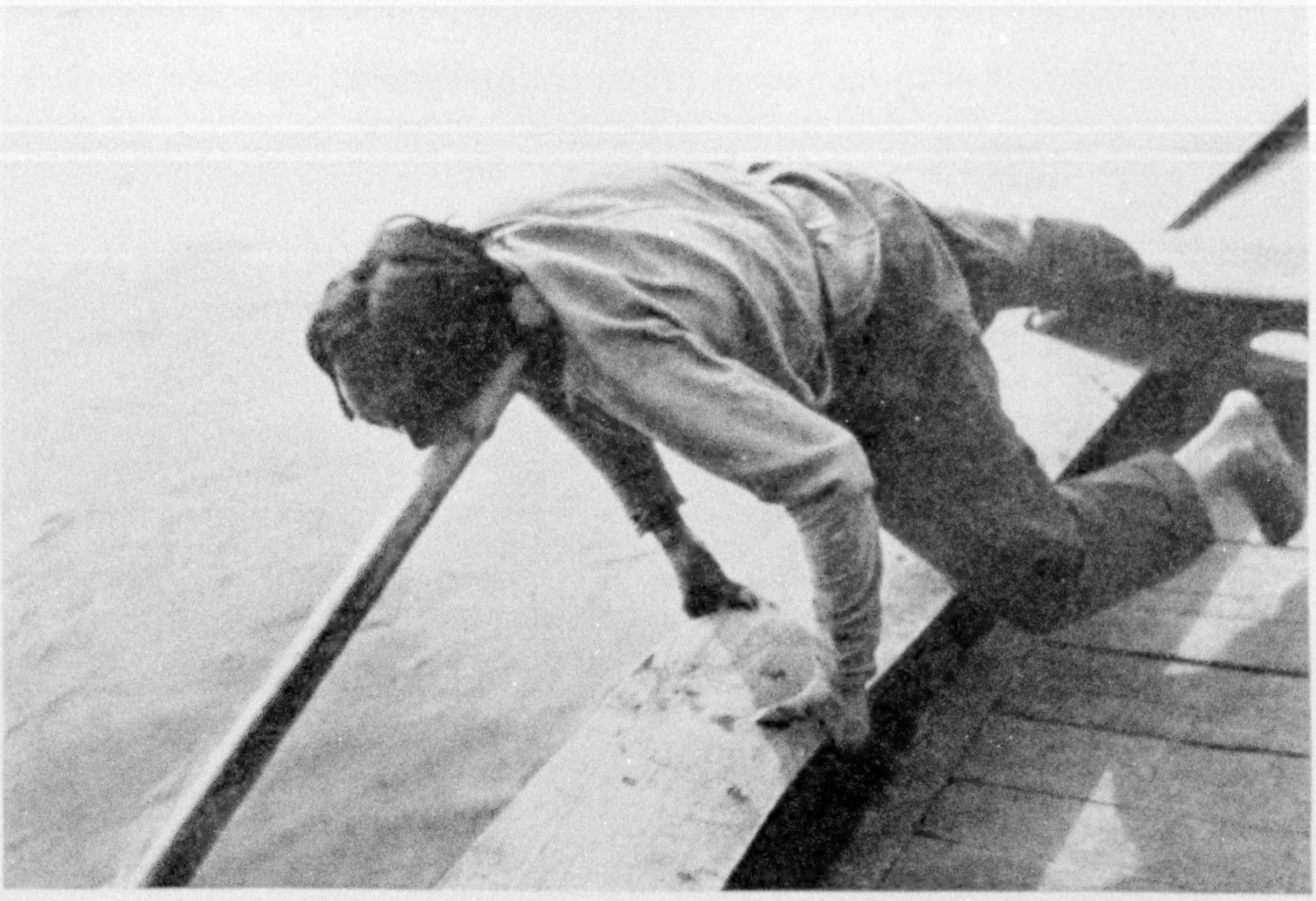
OILING HER UP FOR ANOTHER VOYAGE

The Chinese seldom paint their river boats, but coat them at regular intervals with an oil made from the berry of a tree, which is applied with a roll of soft lint.



MAKING LIME ON THE YANGTZE

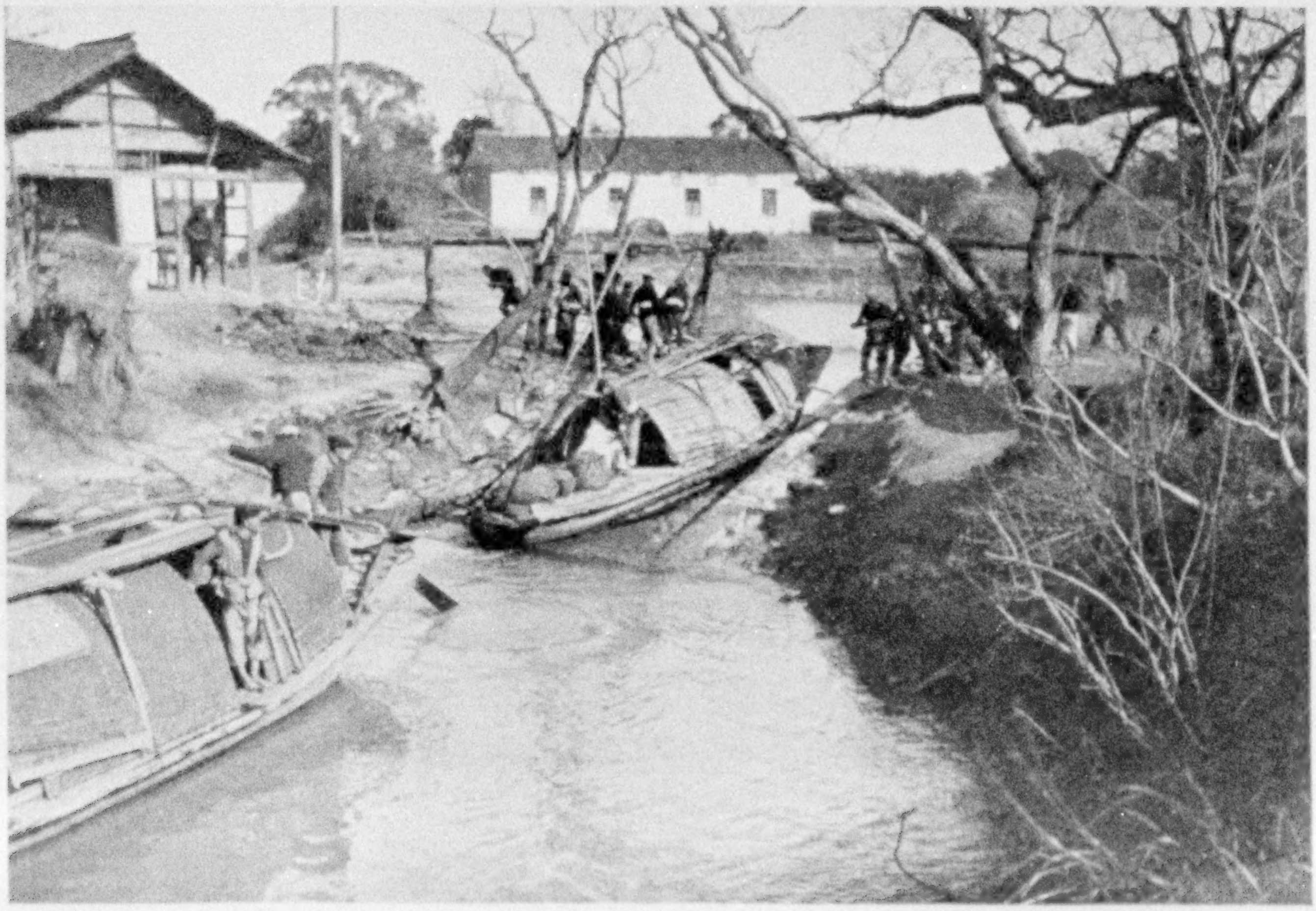
In the vicinity of Haimen (see map, page 625) is found a seashell which is burned in these kilns, and the resulting lime is mixed with wood oil to make a putty for calking boats.



Photograph by Maynard Owen Williams

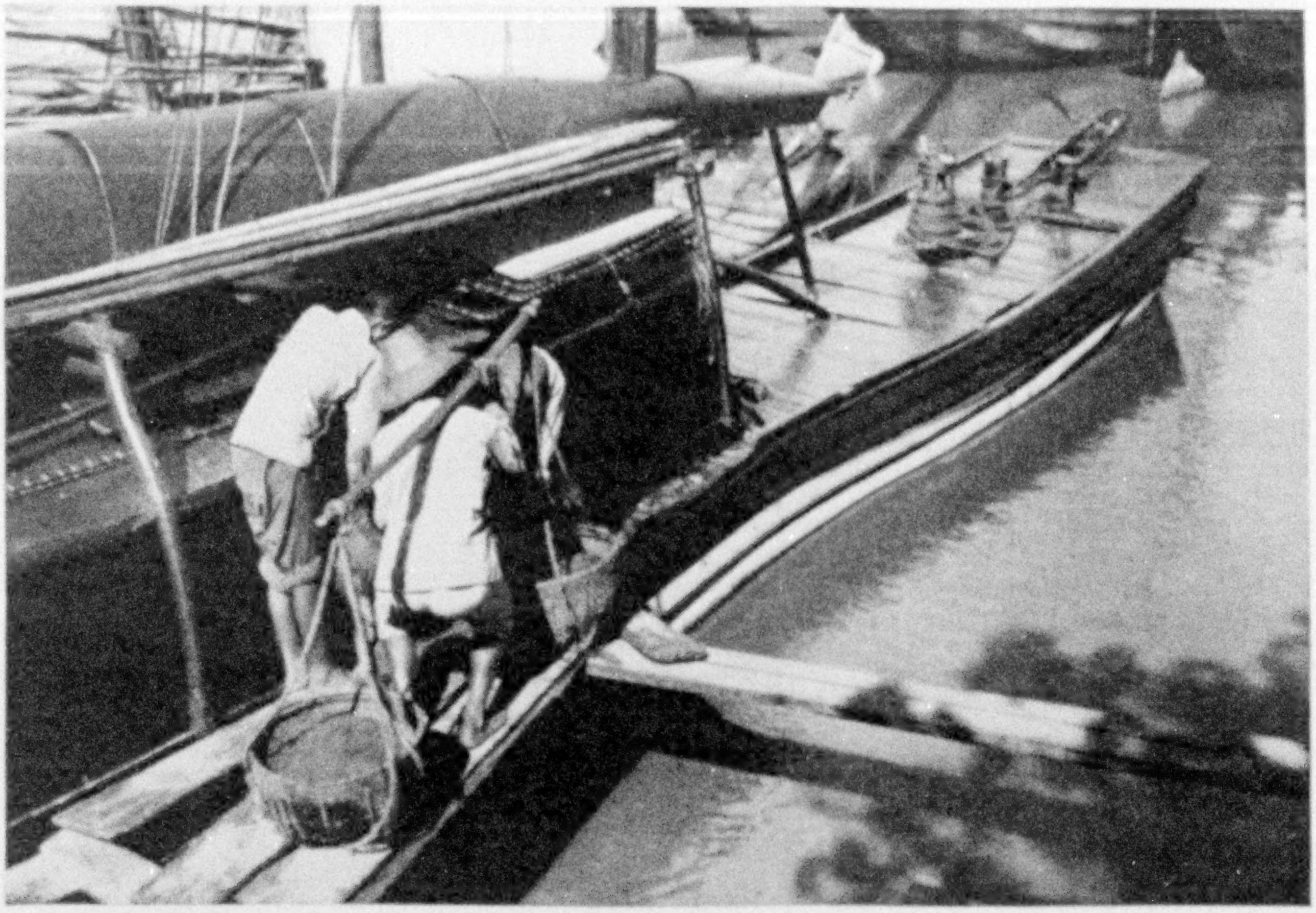
POLING A JUNK

Place the butt of the pole against the shoulder, brace your feet, clutch the side of the boat and pull the body flat, and thus gain a few inches against the current or the gravel bottom.



A MUD SLIDE SERVES AS A CANAL "LOCK" NEAR HANGCHOW

The canals vary in level, and locks are numerous, especially in southern China, where they are often little more than mud slides, over which the boats are pulled by windlasses.



THE WASP-WAIST BOAT WAS DESIGNED TO OUTWIT CUSTOMS OFFICIALS

This craft comes down the Han River to Hankow. It has to pass a *likin*, or local customs station, where from time immemorial the practice has been to determine the capacity of the boat by its girth at the insert of the mast. This measurement is taken in order to estimate the amount of cargo and the duty to be levied. Boatmen decided to avoid what they regarded as excess likin rates by constricting their vessel at the insert of the mast and rapidly widening the hull to the rear of it so that it looked somewhat like the body of a wasp. The Chinese are as fond of humor as are the Irish, and the customs officers, in appreciation of the joke on the government, allowed the old method of computation to stand.

punt and plank, expecting at any moment to be flung into the surf. We were a mile from the shore and probably would never have reached it in safety. Finally a gigantic wave carried us over the dike. We dropped a reserve anchor with a bamboo cable fastened to the mast.

Working in the teeth of a spray that felt like a shower of lead shot, we had to tug at the cable after each wave assault to keep the mast from being uprooted by the next blow. After a day of desperate struggle the storm abated at nightfall and the next morning we found ourselves on a grassy plain, far from the sea.

Fortunately, not far away we saw an inlet from the sea. We obtained twenty coolies, who in time dug a canal in front of the junk, and three days after the storm we were able to get back to the Inland Sea.

While pirates are to be feared in Chinese waters, piracy in this part of the world is not necessarily a lifelong profession. One may be engaged in a decent boat occupation in normal times, but when trade is dull the temptation to piracy may become too strong to resist.

In ancient times so terribly did the sea rovers infest the coast that one emperor with a stroke of his vermilion brush solved the problem by ordering all his seaports to move inland 20 miles. Vast populations and great cities were moved from the mouths of rivers by this one act. Old walls and dwellings were abandoned; new walls and properties were set up.

The old sites were used as observation points, and fortresses were located near them, so that it was no longer possible for a fleet to descend without warning upon the inhabitants of an unsuspecting city. This is why to-day there are no ports on the actual seacoast of China.

NEW CHINA AND THE PRINTED PAGE

BY PAUL HUTCHINSON

"Sage with holy brow,
Say farewell to China now;
Live like the swine,
Leave off your scholar-gown!
This city of books is falling, falling,
The Empire of China is crumbling down."

SO VACHEL LINDSAY depicts the warning that came to Confucius when, more than two thousand years ago, he walked the beach of Shantung, in the land "where books are made like bricks and tiles." But the message of Lindsay's poem is that the land of books will outlast any other, and that

"China will fall,
The Empire of China will crumble down,
When the Alps and the Andes crumble
down;
When the sun and the moon have crumbled
down."

It may be that the American poet is right. It may be that China possesses the world's one lasting civilization. It may be that ten thousand years from now the books and bookworms that have caught Lindsay's imagination will still be in placid possession of a vast portion of the Asiatic mainland. It may be.

SYMBOL OF NEW CHINA IS THE CYLINDER PRESS

But there are bound to be changes, subtle differences in spirit, between the China of Confucius and the China of the future. These changes are already appearing. In most cases they are not as spectacular as the shift from Manchu dynasty to republic, but they go farther beneath the surface of things and they will mean more. They are the true New China.

Probably the clearest indication of the kinship between Old and New China is the place given literature. Old China venerated the printed page; New China depends upon it for success.

If the symbol of Old China was the examination halls, where the students of the twenty-one provinces (the three eastern provinces of Manchuria coming under the same system) sought official preferment by writing essays in the accepted classic form, then the symbol of New China is the whirling cylinder press, which sends out its millions of pages each year to every part of the country.

Until he has actually lived in their midst, it is almost impossible for the Westerner to appreciate the position which literature holds in the minds of the Chinese—nine in every ten of whom can make no pretense of reading the classical language.

Since the Golden Age of Greece, the Occident has known nothing like it. In the Middle Ages learning was confined to a monkish minority, but it was a minority that the mass of men rather despised in their hearts. In China the scholar has always despised all others. And he always will.

Since the days of the sages it has been the duty of a Chinese to preserve from destruction any scrap of paper bearing a written message. In many cities boxes are provided in which may be placed character-bearing papers rescued from the streets (see illustration, page 689).

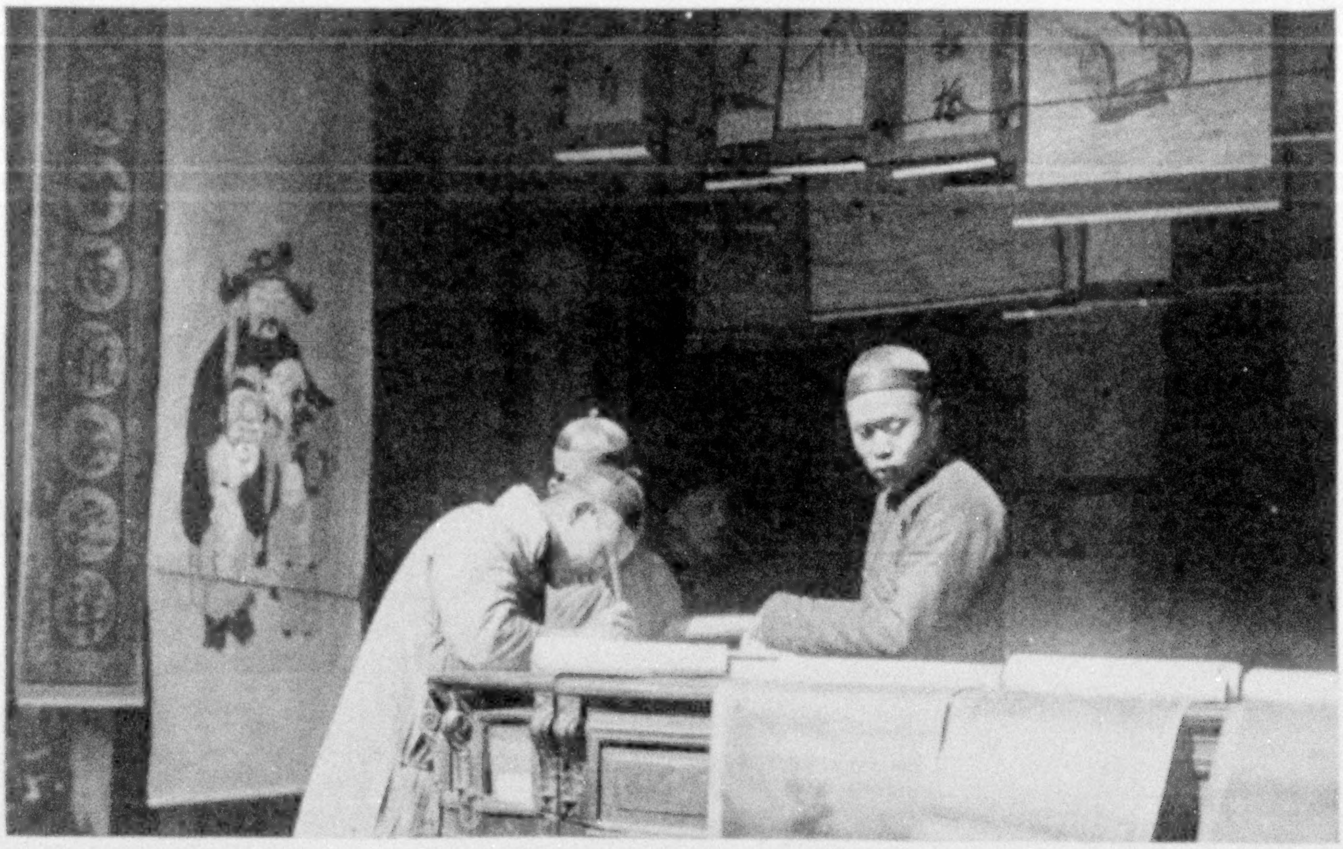
One enterprising Japanese liver-pill concern has erected thousands of waste-paper boxes, and the gatherer of merit who brings his retrieved bit of salvage to their guardianship must look into the face of the ubiquitous admiral who advertises the benefits of the "Benevolent medicine."

Rich men may add to the merit of their other good deeds by employing the poor to go about this business of waste-paper rescue.

I have seen a ragged wretch shave death before a tramcar by inches in order that he might grasp a fluttering bit of newspaper that probably extolled the merits of some guaranteed consumption cure. With the scrap secure, he tucked it into a wooden box, built to protect a rain-pipe, doubtless mistaking it for a receptacle specially designed for his pious purpose.

A SCHOLAR DEFEATED CHINA'S FIRST PRESIDENT

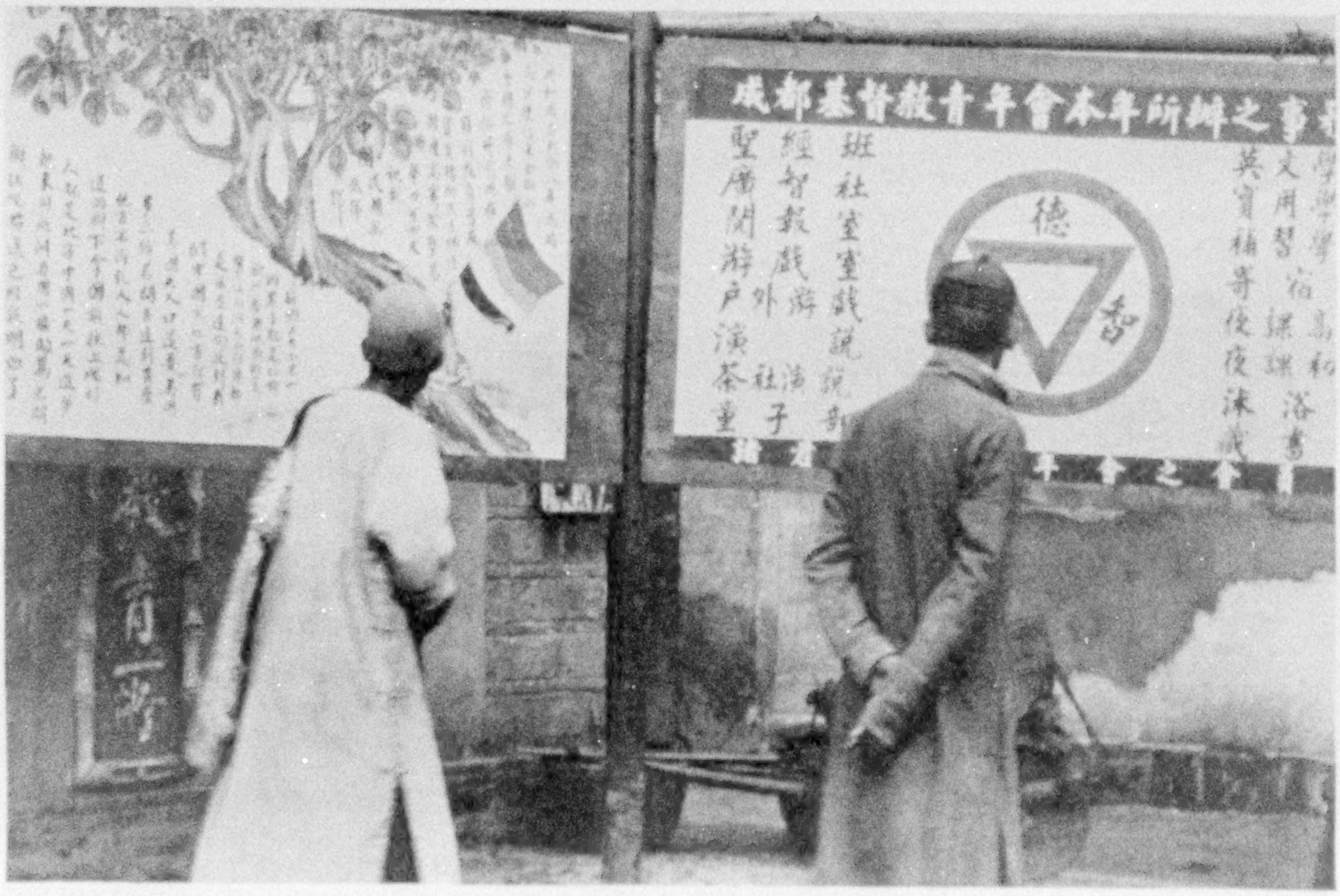
Not but that China has had her iconoclasts. Shih Hwang-ti (also spelled Chin Shih Huang Ti), the emperor who founded the Chin dynasty and built the



Photograph by Charles H. Kragh

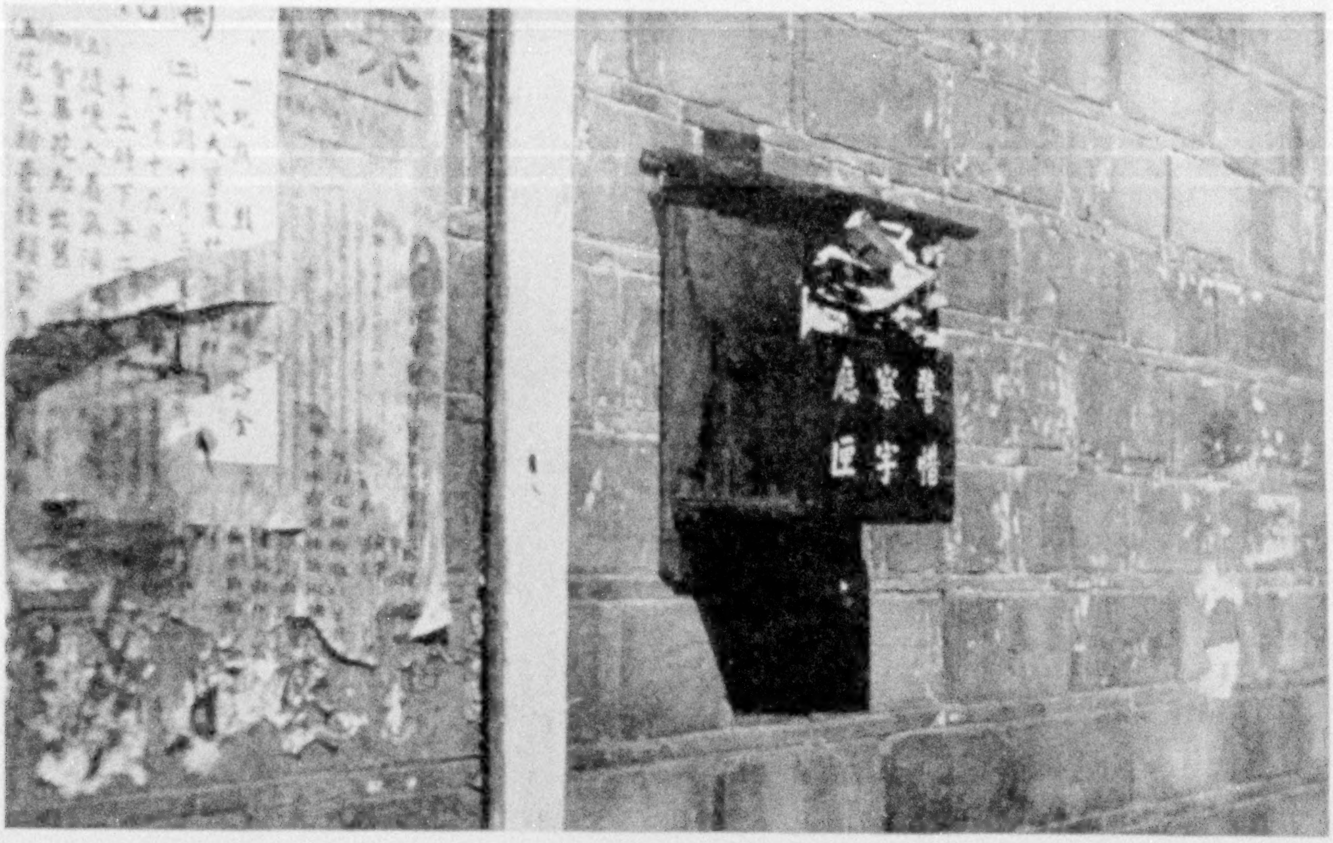
A SCROLL AND PICTURE SHOP OF SHANGHAI

The Chinese venerate learning, and the walls of their living rooms and studies are often covered with scrolls upon which have been written excerpts from their classics. Such scrolls and water-color paintings are sold at street shops where, in some instances, the proprietors cannot read.



THE RED TRIANGLE PROCLAIMS ITS MESSAGE TO CHINA

The Association has taken its program of threefold development into many parts of China and has been especially active among the students. These posters are announcements of its activities and program, and also illustrate how, contrary to popular belief, the Chinese language may be written laterally as well as vertically.



Photograph by Paul Hutchinson

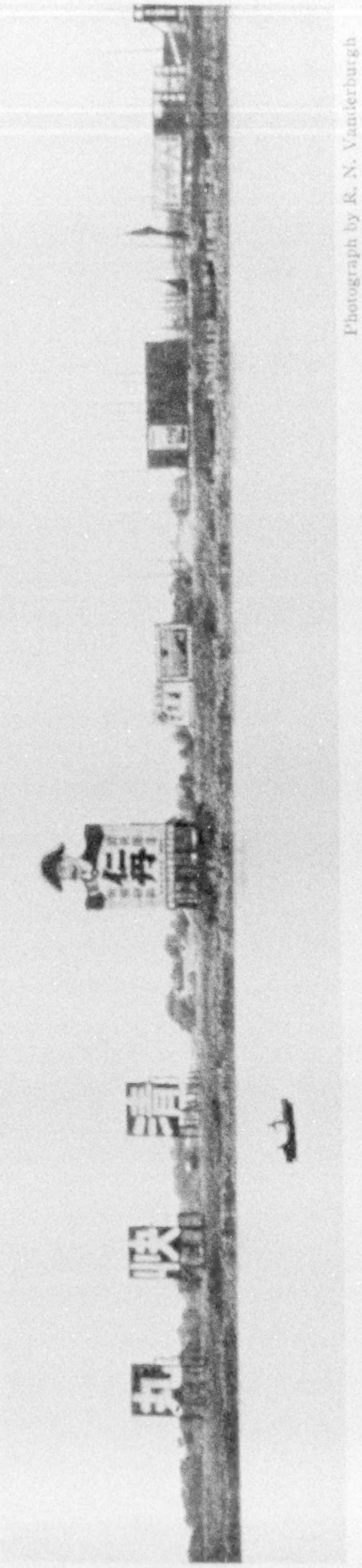
A WAYSIDE SHRINE TO THE WRITTEN WORD

There is in excess of 90 per cent illiteracy in China, but the unlearned masses reverence the written word. Since the days of the sages it has been the duty of a Chinese to preserve from destruction any scrap of paper bearing a written message. In many cities boxes such as this are provided in which may be placed character-bearing papers (see text, page 687).

Photograph by Maynard Owen Williams

FASCINATED BY THE PRINTED PAGE

The circulation figures of a Chinese newspaper are not a fair record of the number of its readers. Many get their news free, from the bulletin boards, while copies of the paper are also passed on from reader to reader, selling a trifle cheaper with each transfer, until they are so worn and ragged as no longer to be legible.



Photograph by R. N. Vanderburgh

A LINE OF SKYSCRAPING BILLBOARDS MAKES SHANGHAI AND NEW YORK KIN

Save for the difference in language, a stranger approaching Shanghai by river might well think himself crossing the Jersey flats that lead into America's metropolis, for much of the scenery is hidden by rows of billboards advertising patent medicines, tobaccos, and various articles of household use. The admiral of the central poster is extolling the virtues of a widely used Japanese liver pill (see text, page 687).

Great Wall,* evidently believed the cult of literature a menace to the country, for he carried through a book-burning and execution of scholars on a scale exceeding the best efforts of the Vandals. Even in these latter days, whatever the theory, the facts have frequently suggested that the sword was considerably mightier than the ink-brush. But not always.

There was, for example, the case of Yuan Shih-kai and Liang Chih-chao. All the world knew Yuan. He was the Strong Man of China and the first permanent (comparatively speaking) president of the Republic. He had a model army at his back and the support of powerful foreign interests. If ever a general seemed to have a country firmly in his grasp, it was Yuan Shih-kai.

Yuan Shih-kai dreamed the dream of many another military despot. He dreamed of a dynasty with himself and his sons and his sons' sons on the Dragon Throne. The stage was carefully set for the coronation, the usual forms of Oriental coyness had been complied with, the last vestige of republican government seemed to have been wiped out, when Liang Chih-chao arose to address the nation.

Mr. Liang is a scholar. He had no army, but he has the best Chinese style of any living writer. He set down a few burning thoughts on the usurpation of government, and since it was exceedingly unsafe to refer directly to Yuan, and bad form withal, Mr. Liang confined himself to pointing out the horrible example of the then President Diaz of Mexico.

The Chinese admired the style; they caught the point; the pamphlet on the shortcomings of Porfirio Diaz became a best seller, and the dynastic dream of Yuan was shattered. The blow killed him.

Of course, that is an extreme example. Pamphlets are still being published in China; some of them are exceedingly clever and exceedingly pointed; but it is hard to discern that many of those at present in authority are being turned from their ways by the influence of these

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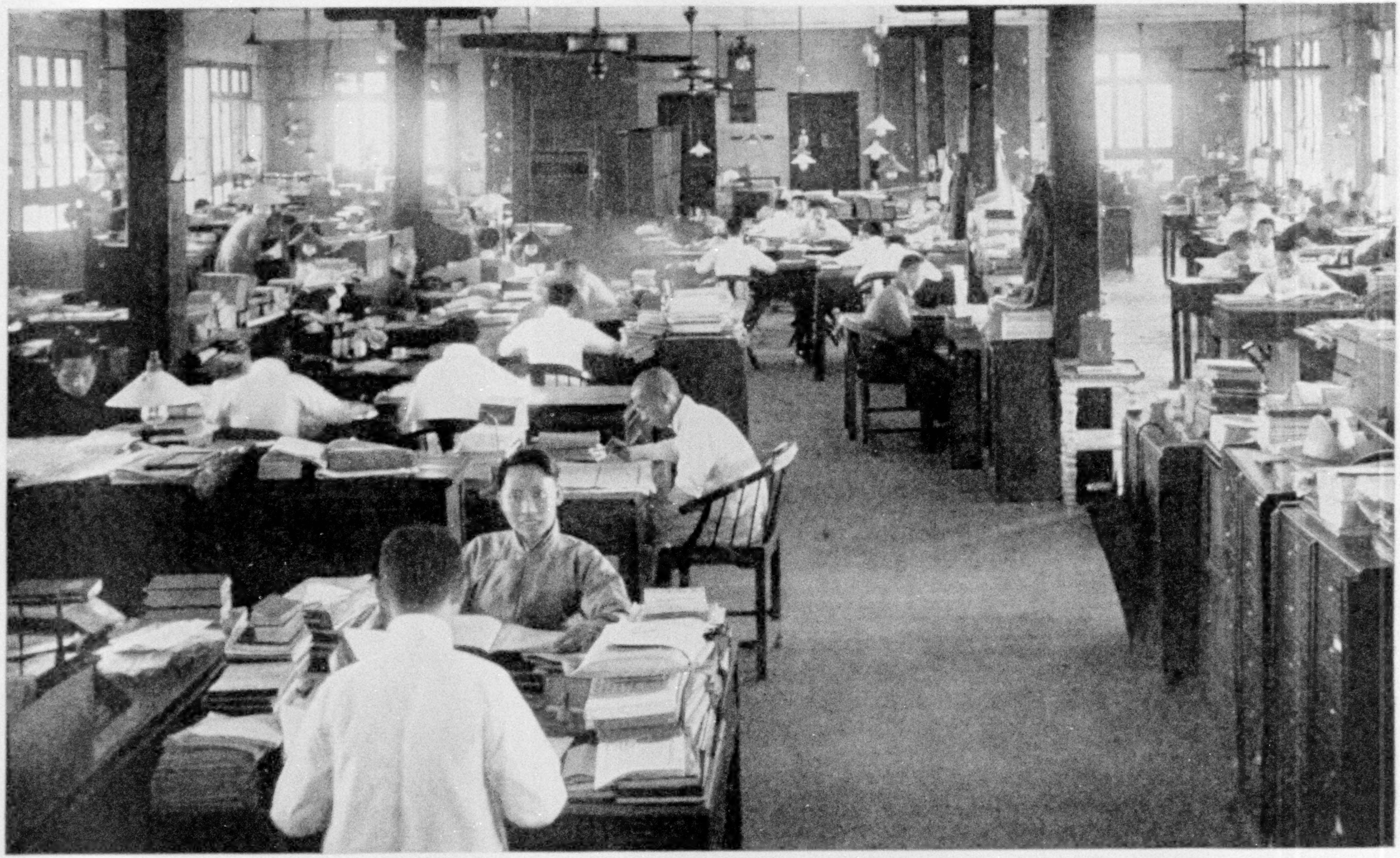
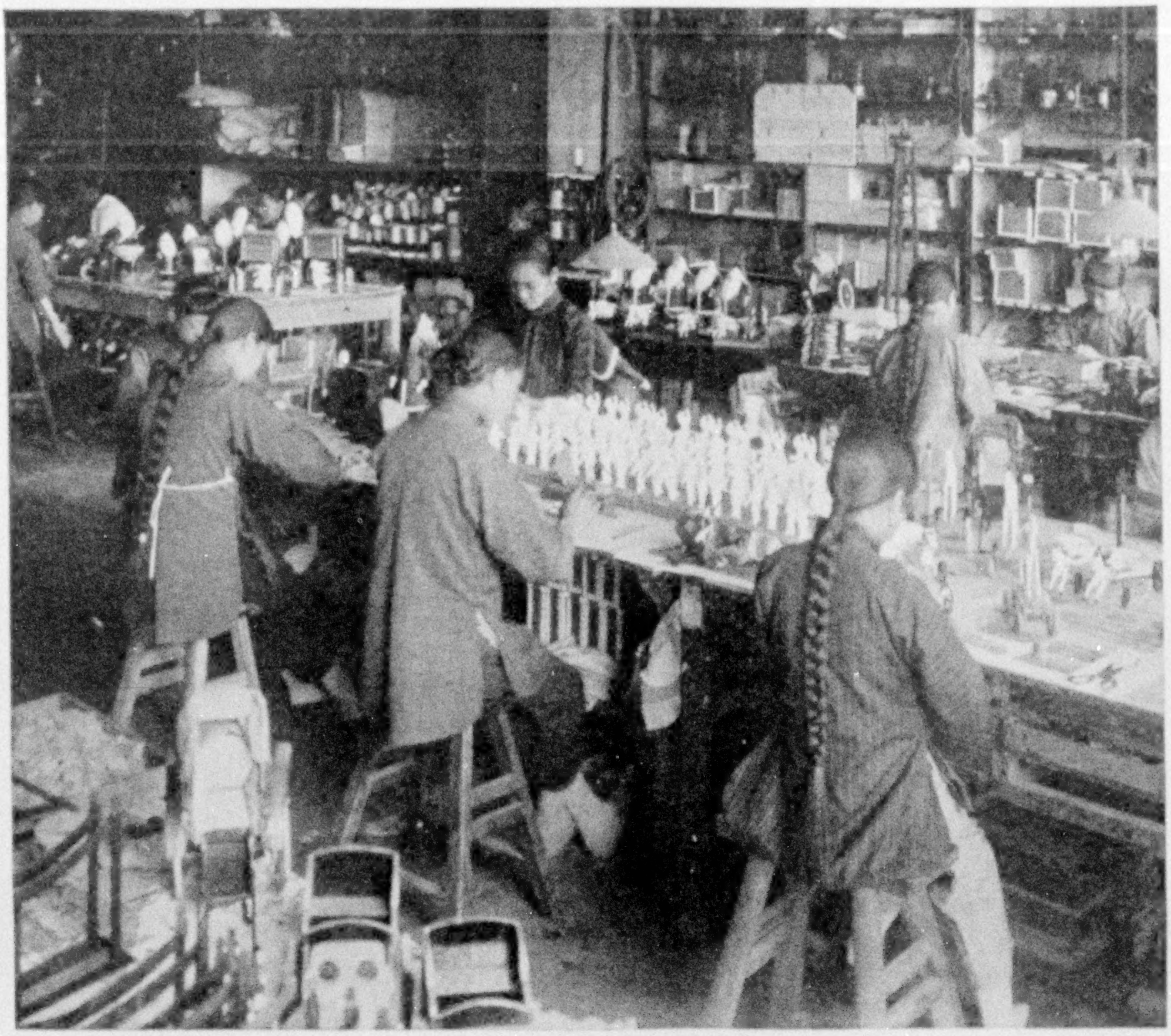
* See "A Thousand Miles Along the Great Wall of China," by Adam Warwick, in the NATIONAL GEOGRAPHIC MAGAZINE for February, 1923.



Photograph from Paul Hutchinson

EDITING THE MISCELLANEOUS OUTPUT OF THE COMMERCIAL PRESS OF SHANGHAI

The range of subjects of the books this company publishes runs the gamut of ethics, politics, economics, history, geography, science, mathematics, languages, manual training, dictionaries, etc. This necessitates the employment of a large and talented editorial staff, and many famous men have from time to time held positions on it (see text, page 719).



Photograph from Paul Hutchinson

ONE OF SANTA CLAUS'S CHINESE BRANCHES

The versatile Commercial Press of Shanghai (see text, page 719) has invaded the toy-making field and maintains a large manufacturing department employing many nimble-fingered girls. The Chinese are adept toy-makers, but the great mass of their own children are too poor to have them, and the youngsters of America and Europe benefit most by their cleverness and skill.

screeds. And yet, at this moment, the movement that holds out the most hope for the future is largely literary and finds the fountain of its energies in a university.

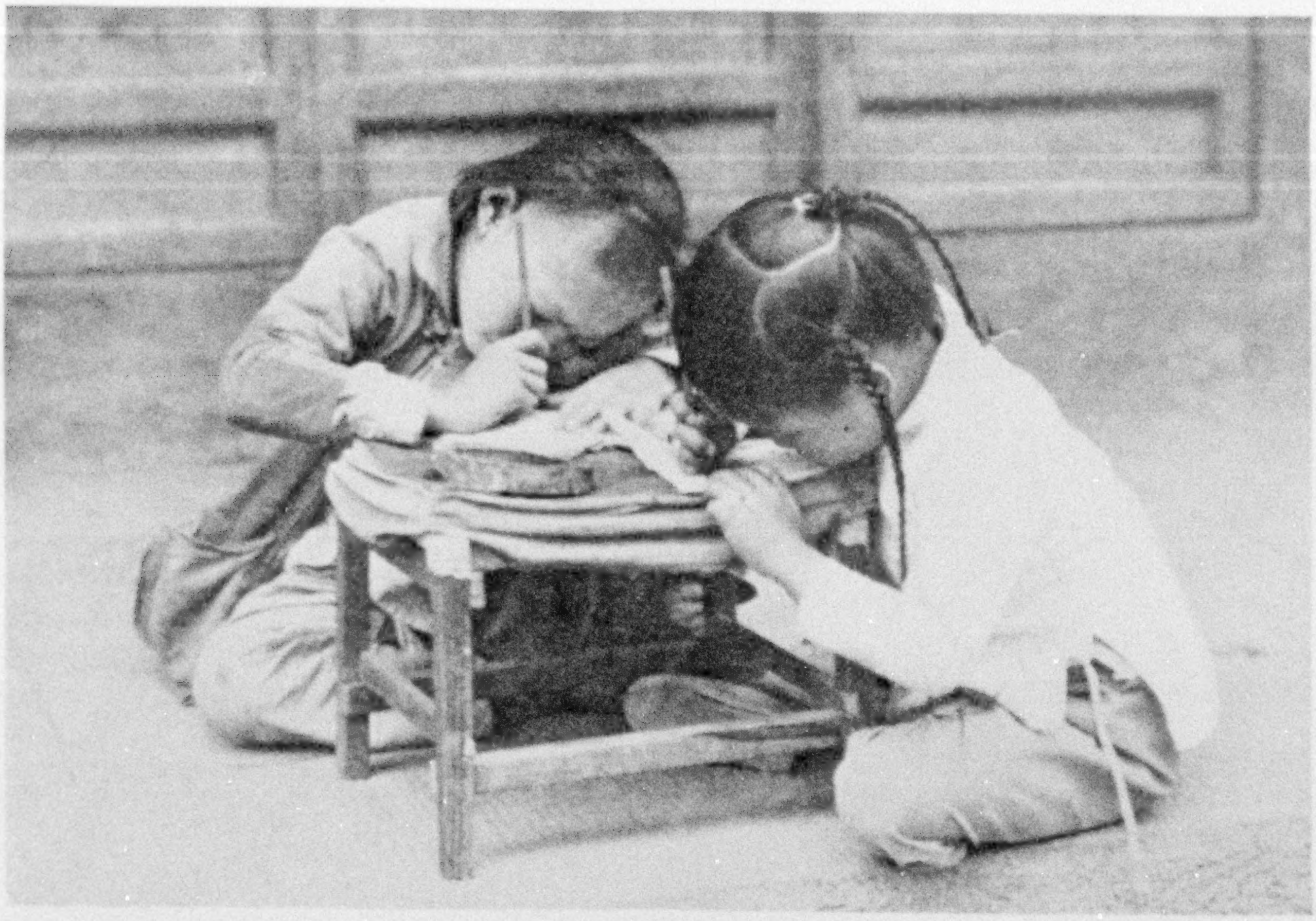
CHINA HAS OLDEST NEWSPAPER IN THE WORLD

China boasts the oldest newspaper in the world. From a journalistic standpoint, it is probably also the worst, since the Peking Gazette is nothing but a collection of presidential mandates, decrees of appointments, and lists of honors. Until the fourth decade of the last century, China knew no other paper. The court bulletin, for such it was, held such a monopoly of the field as the late Viscount Northcliffe never attained in England.

Then translations into Chinese from the Hongkong foreign papers, made at the suggestion of Wu Ting-fang, former Chinese Minister to the United States, marked the beginnings of what is modern Chinese journalism.

The first regular newspaper to be established was probably the *Shun Pao*, which is still published in Shanghai and is the most successful paper in China. This journal was established in 1872, and was rapidly followed by the *Hu Pao*, the *Sin Wan Pao*, and other dailies, many of them under foreign control.

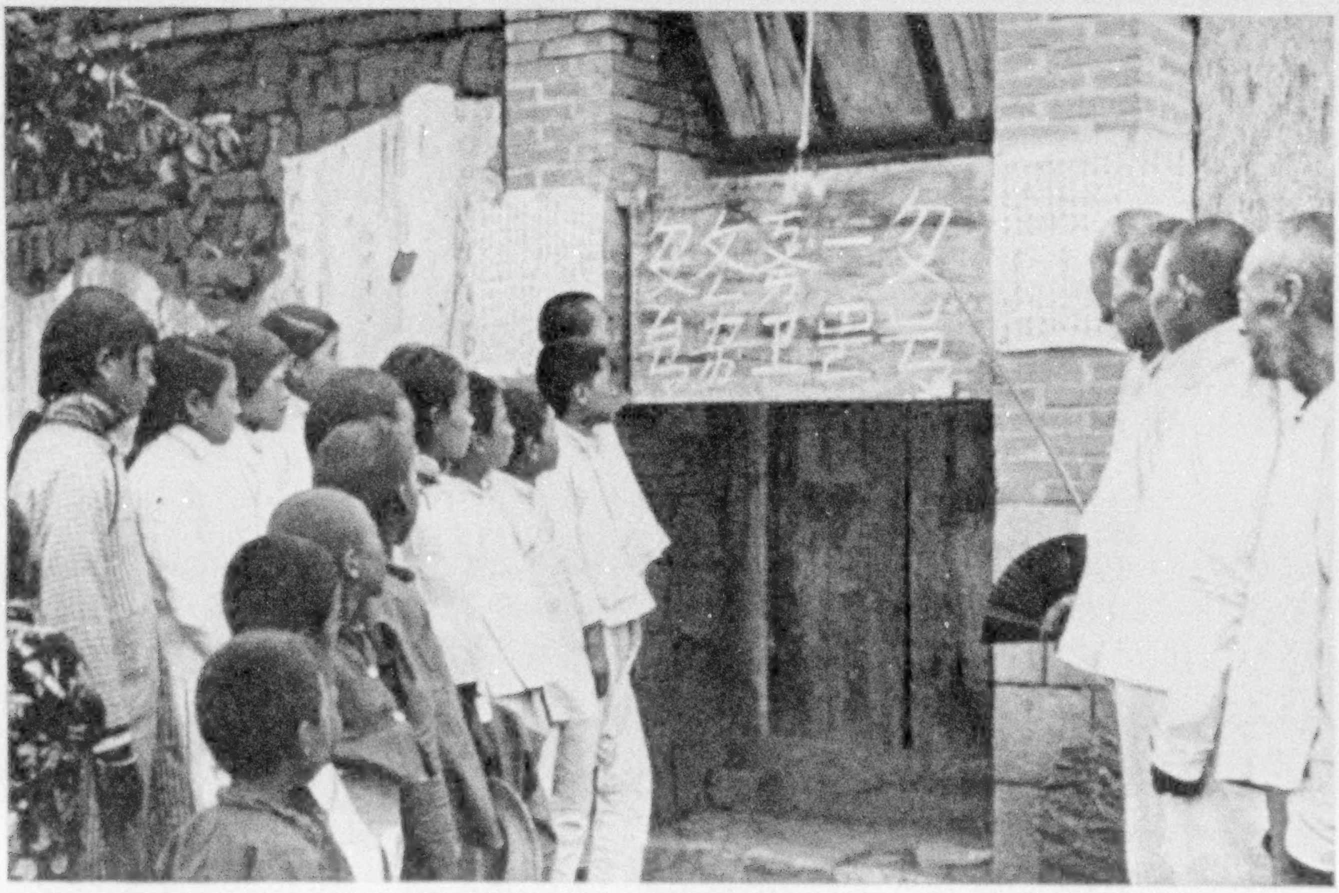
The influence of newspapers published by foreigners must be acknowledged in



Photograph by J. T. McGarvey

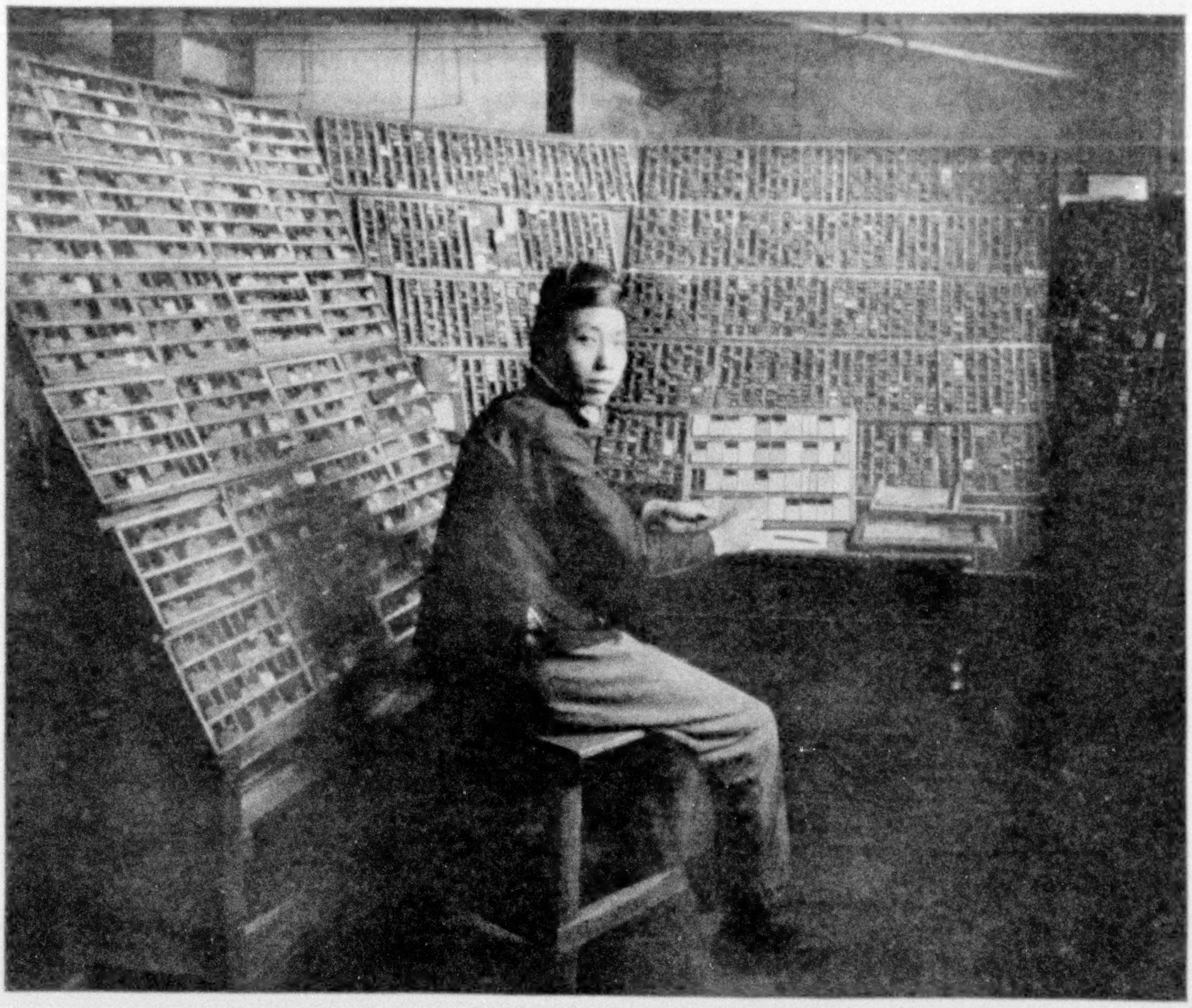
TAKING A LESSON IN BRUSHMANSHIP

Chinese characters are made with a fine brush instead of with a pen, and the children have to begin early to learn their intricate designs.



LEARNING THEIR LANGUAGE ALL OVER AGAIN

The written, or classical, Mandarin Chinese language contains thousands of characters, which makes its mastery an extremely difficult achievement. To remedy this situation and make possible a written language for the education of the masses, a new and much simpler phonetic script has been evolved from some of the root characters of the Mandarin (see text, page 719).



Photograph from Paul Hutchinson

A BAD PLACE FOR A PRINTER'S DEVIL

The ideograph cases in a Chinese printing office contain thousands of character types, and it is a diverting sight to see a Chinese typesetter darting about the room like a dragon fly, in frenzied efforts to meet the editorial demands. A case of the small new phonetic script, consisting of 39 symbols, is here shown (central background), set beside a case of the large, cumbersome old-style type. The Chinese first used movable type more than a thousand years ago, the characters being cut in plastic clay, hardened by fire, and set in an iron frame partitioned off by strips.

studying the reasons which led to the founding of these Chinese papers. In 1827 Mr. James Matheson began to issue the *Canton Register*, and from this there has grown a body of periodicals that includes daily newspapers, weekly and monthly reviews, commercial organs, humorous and illustrated papers, and magazines dealing with scholarly questions concerning the life of the country.

CHINESE JOURNALISM BEGAN IN FOREIGN-CONTROLLED CITIES

Many of these papers have been edited by missionaries, who must be regarded as forerunners of the new journalistic day in China. At present the most influential are those published in English, but there are other papers printed in French, Russian, Japanese, Italian, and Portuguese.

Chinese journalism began its career in the port cities, particularly those under foreign control. Consideration of the simple but effective method by which the Manchu dynasty censored the efforts of any who might not agree with it will suggest why this was the case. The Chinese editor might attack the imperialism which placed the "grasping nations of the West" in control of his country's richest ports, but he was generally careful to launch his attacks from beneath the protection of those same "usurpers."

For a long time this tended to give Chinese journalism a furtive character—an influence not yet wholly eradicated.

Photograph from Paul Hutchinson

THE BUSINESS OFFICE OF A LARGE SHANGHAI DAILY

Few Western papers can boast a finer home than that which houses this Oriental journal. Advertising, which for so long played only a very minor part in the development of the Chinese press, has now become an important source of revenue, and one prominent newspaper devotes more than three-fourths of its space to ads. Most of them set forth the supposed merits of patent medicines and competitive brands of cigarettes, but booksellers and theaters are also extensive advertisers.

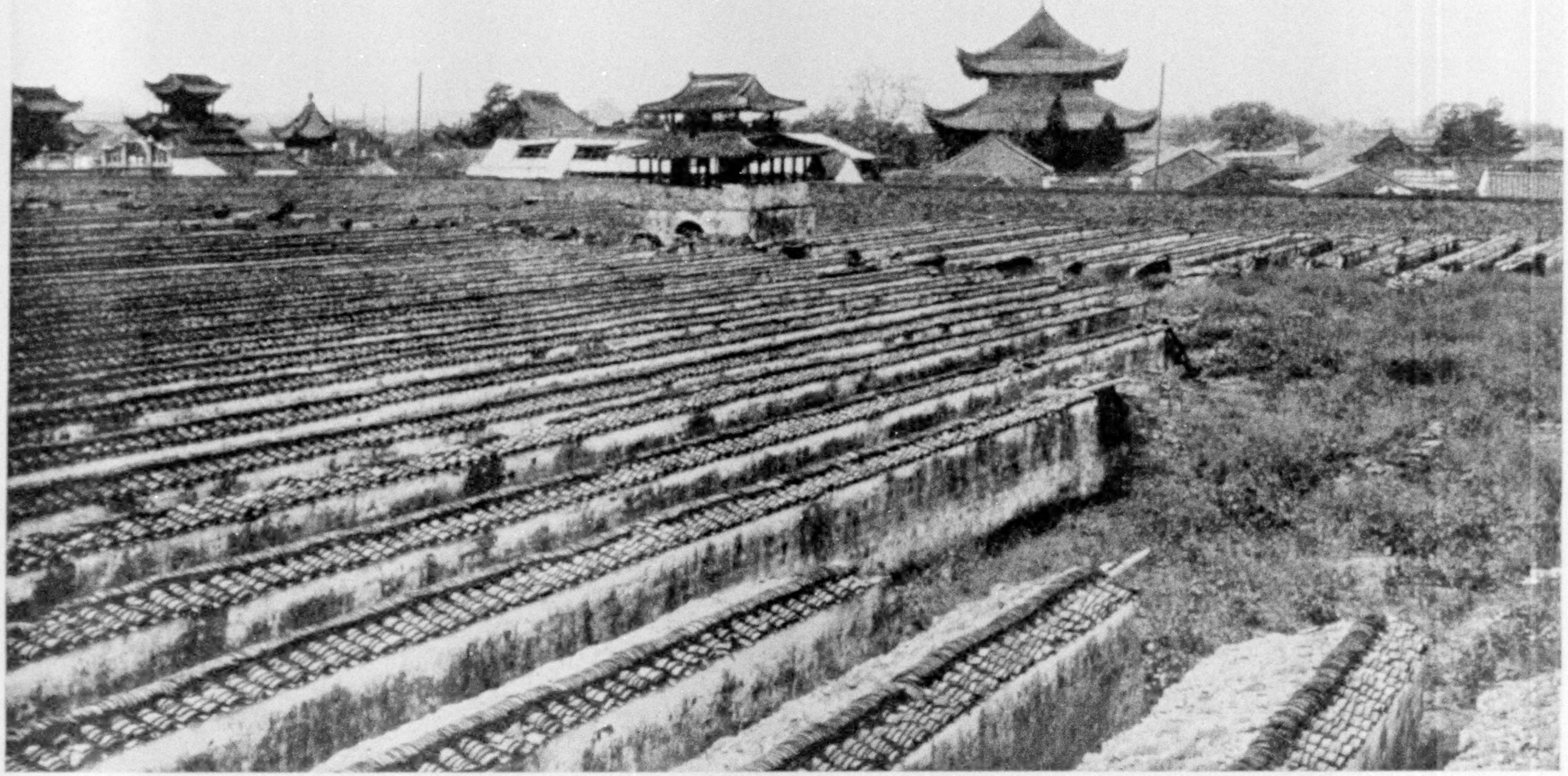
The papers which sprang up in the ports were, like the secret societies which flourished there, weapons to attack the ruling powers.

They did not hesitate to resort to the use of outrageous innuendo and even barefaced falsification, besmirching the personal character and official record of those in authority. To this day it is, for example, difficult to winnow the facts concerning the character of the late Empress Dowager from the fabrications of the revolutionary editors of Shanghai and southwestern China.

The justification for such tactics is found in their success. The newspapers and pamphlets, through their sustained scurrility, completely undermined confidence in the reigning house—confidence which had been waning for more than half a century.

Since the Manchus had no conception of the uses of publicity, the revolutionists wielded that weapon alone. And the constant reiteration that the government was corrupt, which was only too true, emphasized by personal anecdotes, which were frequently untrue, finally achieved the desired result.

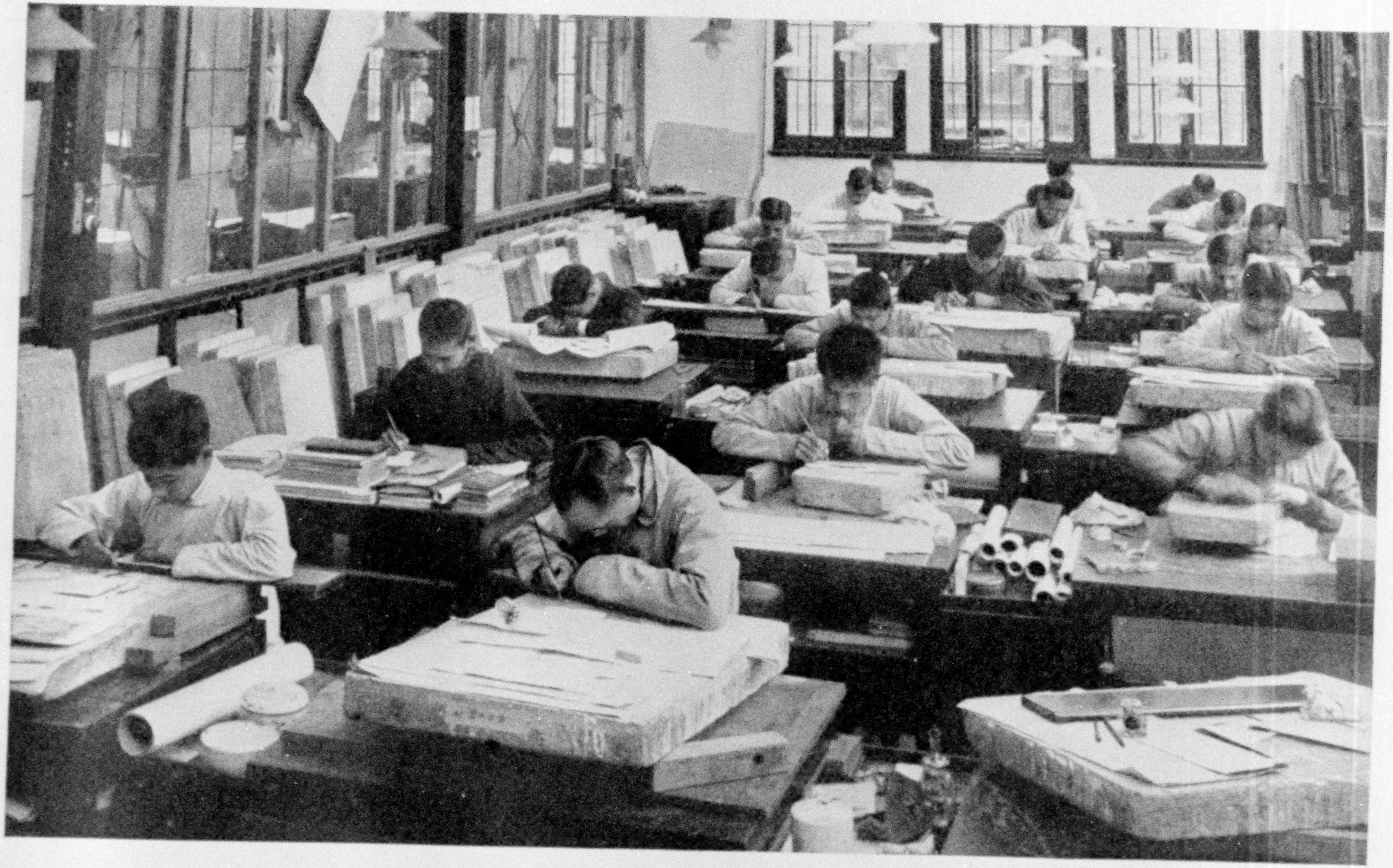
In the language of American business, the demand for a change was "sold" to the Chinese people.



Photograph by Maynard Owen Williams

NANKING'S CRUMBLING EXAMINATION HALLS SUGGEST A LITERARY STOCKYARD

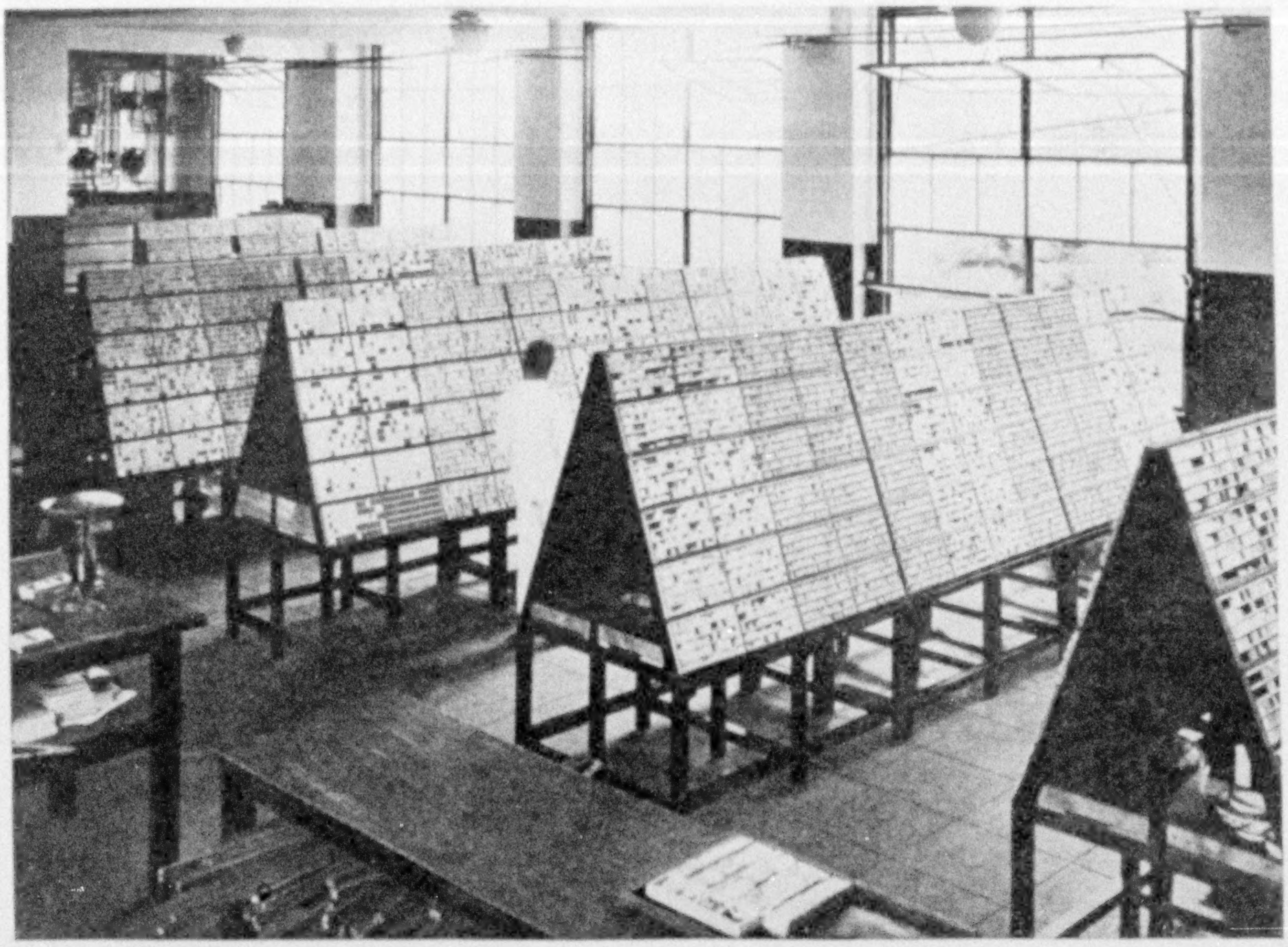
Under the old régime in China, after a young man had received his bachelor's degree he was privileged to come to the provincial capital and take examinations for a master's degree. For hundreds of years the examinations were held in tiled sheds such as these, each aspirant being assigned a prisonlike cell and kept there in solitary confinement until he had finished writing the essays on Confucian philosophy which constituted the examination. Only those who passed this test might hold office in China's civil service until this strange system was abolished, in 1904.



Photograph from Paul Hutchinson

ENGRAVING ON LITHOGRAPHIC STONE IN THE PLANT OF THE COMMERCIAL PRESS, SHANGHAI

The central publishing plant of this company is one of the wonders of China. It covers 20 acres of ground and employs about 3,000 men and women in its production activities. The firm has assumed a most enlightened attitude toward the welfare of its employees, with gratifying results (see text, page 719).



Photograph from Paul Hutchinson

THE COMPOSING ROOM OF A CHINESE NEWSPAPER OFFICE

Some sort of machine composition is all that China needs to make its newspaper-producing processes equal to those of Western lands. The new phonetic script (see, also, illustration, page 694) can now be set by machine, but so far no genius has come forward with a practical method of doing away with hand labor in setting up the thousands of ideographs of the old-style writing. It has been estimated that a Chinese typesetter has to walk 3 miles in order to set up one page of a newspaper in these characters.

Three events mark this development in China's journalism. In 1898 the Emperor Kwang Hsü, under the influence of the reformer Kan Yo-wei, issued the edicts of reformation which brought about the *coup d'état* by which the Empress Dowager, supported by the troops of Yuan Shih-kai, made the emperor a prisoner and resumed the policy of reaction.

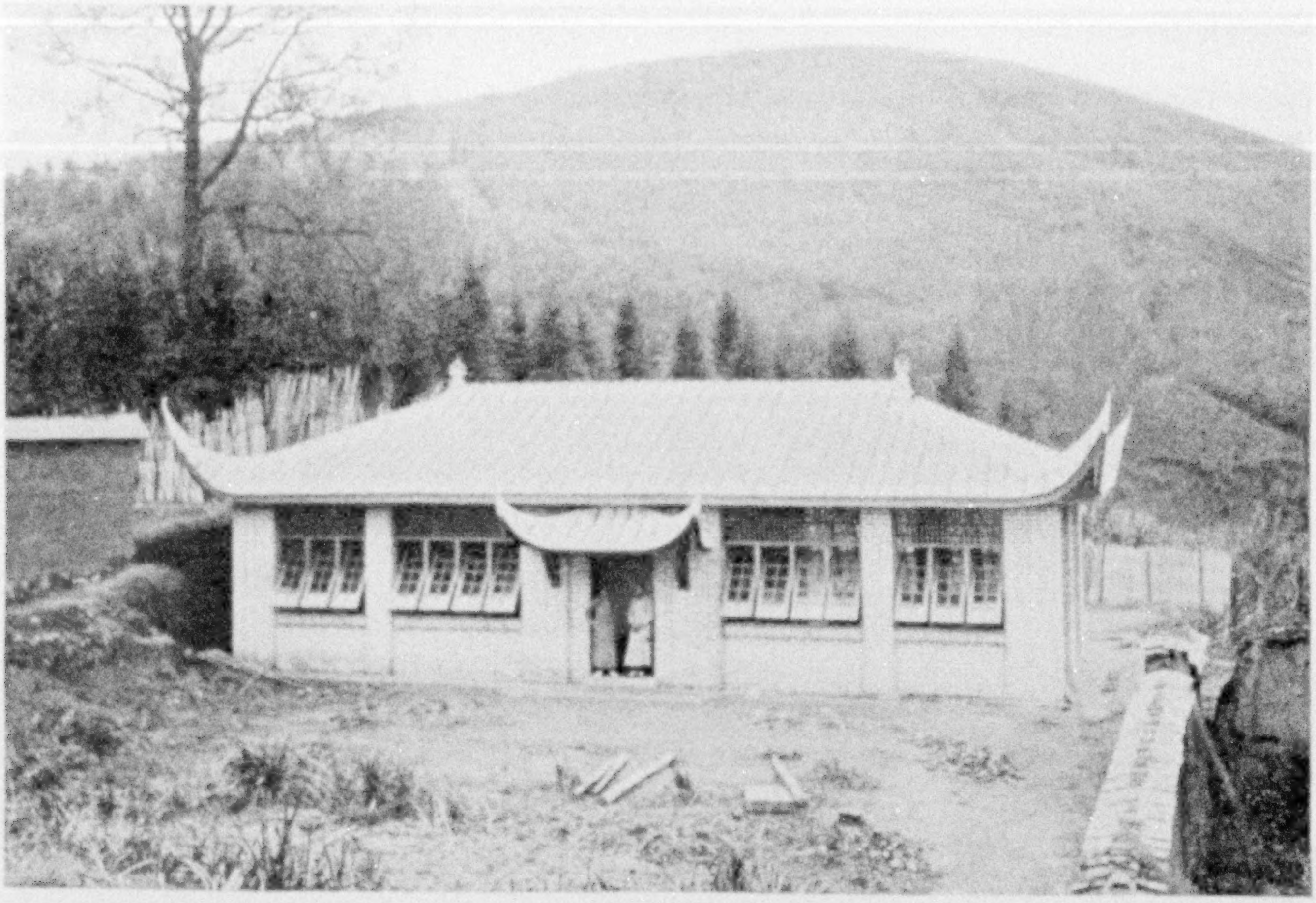
Balked of his designs in Peking, Kan Yo-wei fled to Japan, and from there led the journalistic agitation for revolution. The impetus for an independent journalism in China was supplied by the defeat of the reformers in 1898.

In 1900 the reactionaries were foolish enough to allow themselves to be tied up with the Boxer movement. The utter failure of that uprising gave the old régime its deathblow. Because the Manchus had lost face they had lost authority. From that moment the new forces could develop in comparative safety, and newspapers began to spring up all over the country.

REMARKABLE GROWTH OF PERIODICALS SINCE 1911

The revolution of 1911 removed the last of the barriers. To be sure, there are still practical difficulties in the way of the editor who wishes to speak his convictions concerning the shortcomings of the authorities; but since the establishment of the Republic there has been, at least theoretically, a free press, and Chinese journalism has grown in an amazing fashion.

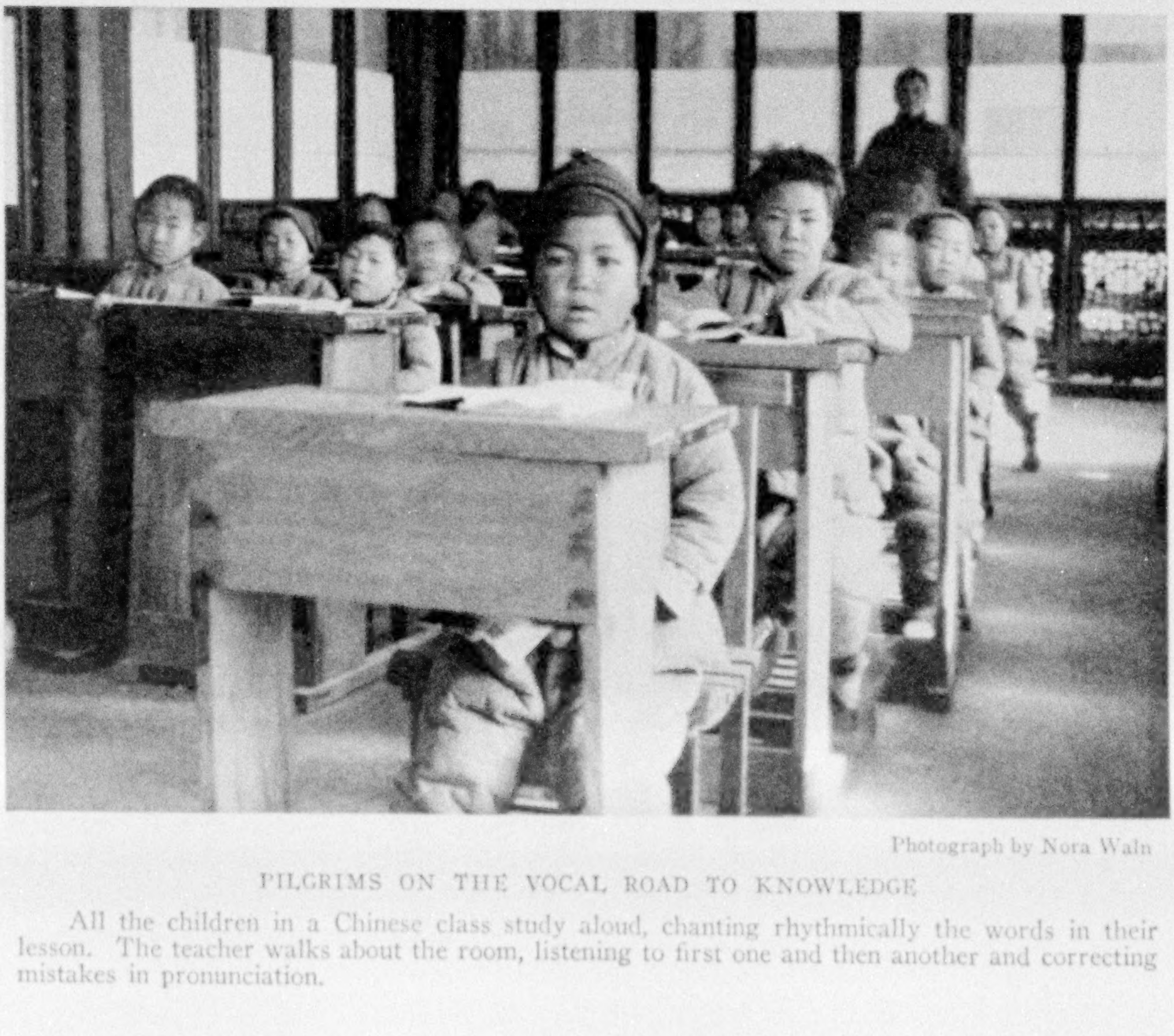
The extent of this growth has not been appreciated in the West. A recent letter from the curator of the largest typographical museum and library in the United States asked for copies of every



Photograph by J. R. Trindle

WHERE THE RISING GENERATION GOES TO SCHOOL IN FUKIEN PROVINCE

The grade schools of China until recently were dark, unventilated, noisome holes; but a new era has come and this is a sample of the kind now being built.



Photograph by Nora Waln

PILGRIMS ON THE VOCAL ROAD TO KNOWLEDGE

All the children in a Chinese class study aloud, chanting rhythmically the words in their lesson. The teacher walks about the room, listening to first one and then another and correcting mistakes in pronunciation.

newspaper published in China, and ventured the opinion that there would not be more than a hundred of these.

When it is remembered that a quarter of a century ago there would hardly have been 50, it can be seen that the estimate was a natural one. But a recent report of the Directorate General of Posts shows nearly 1,200 periodicals registered in the various post offices for newspaper mailing privileges. And this number does not include those which have not yet satisfied the requirements of the department or did not desire, for political reasons, to register.

In the Republic the power of the printed page has been recognized from the beginning. In the days when there were political parties, each party set up its organ in the important cities, and these papers were conducted with all the bitterness that characterized the political journalism of an earlier day in America. In fact, the methods of these party-bound editors largely discredited Chinese journalism.

MANY CHINESE POLITICIANS EMPLOY PRESS AGENTS

Since the political parties largely disappeared, to be followed by combinations of military dictators and individual leaders, it has become the custom for these, likewise, to secure their journalistic representatives.

Most of the politicians now have in their employ what amounts to a press agent. The chief delegate of one of the parties in the Shanghai peace conference shortly after the World War outdistanced competition by securing a graduate of the Pulitzer School of Journalism to look after his interests. His opponent tried to counter by buying a newspaper, but the American press agent easily won the skirmish.

Many other forces are attempting to engage the attention of China to-day by the use of the printed page. From the beginning, the missionaries have used this method. The Roman Catholic priests are famed for their achievements in Chinese scholarship. The first Protestant missionary, Robert Morrison, devoted most of his time to literary work. Other famous pioneers, such as Young J. Allen and Timothy Richard, worked largely through periodicals and books. Several church papers have won a wide circulation. The China-for-Christ Movement, an interdenominational effort of large proportions, attempted to arouse the country with millions of bulletins. The proprietors of the biggest publishing house—one of the largest commercial enterprises in the country—testify to having received their training and inspiration from missionary publishers.

PRINTING PRESSES STREW THE LAND WITH ADVERTISEMENTS

The commercial invasion of China is largely depending upon the printing press. Tobacco companies sow the land with advertisements of their wares, and oil companies are just as eager in presenting the merits of their candles and their kerosene (see illustration, page 690).

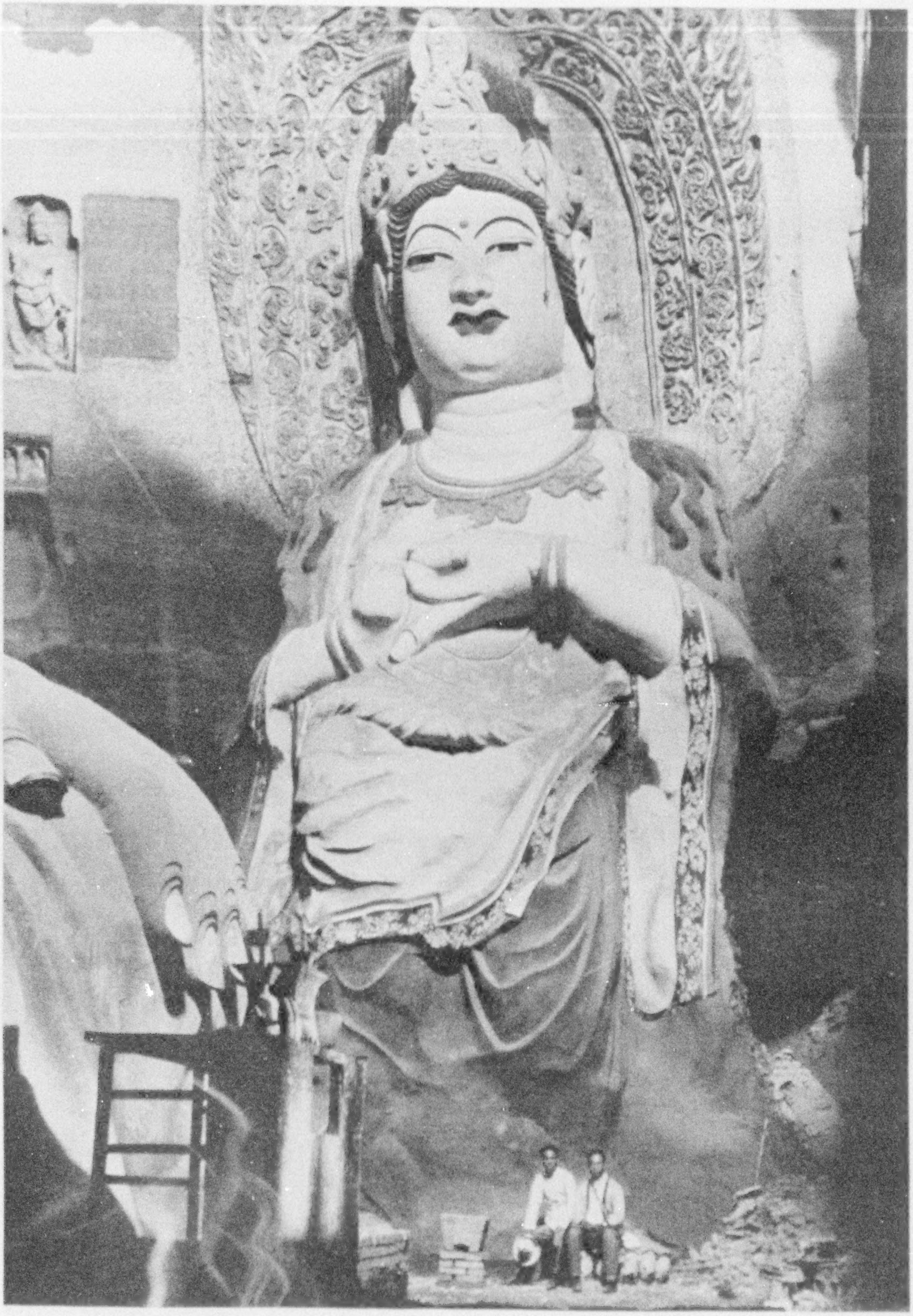
The patent-medicine almanac is reaching a circulation never approached in America, and now the merits of chewing gum are beginning to be pressed home upon a people long deprived of this "boon."

In such a city as Shanghai, with several publishing plants of the first grade, the printers say that it is impossible to produce all the advertising material that foreign firms wish to distribute.

In the more intricate and dangerous game of international politics, the nations are equally awake to the importance of this method of propaganda. Naturally, in the land where even scraps of paper with printed or written characters upon them are objects of value, it is well to control such printing in so far as is possible.

During the early stages of the World War all the powers concerned made determined efforts to influence Chinese opinion in this manner, but little headway was made prior to the entry of the United States into the conflict. The Chinese remained unmoved, convinced that there was no essential difference between the two sides.

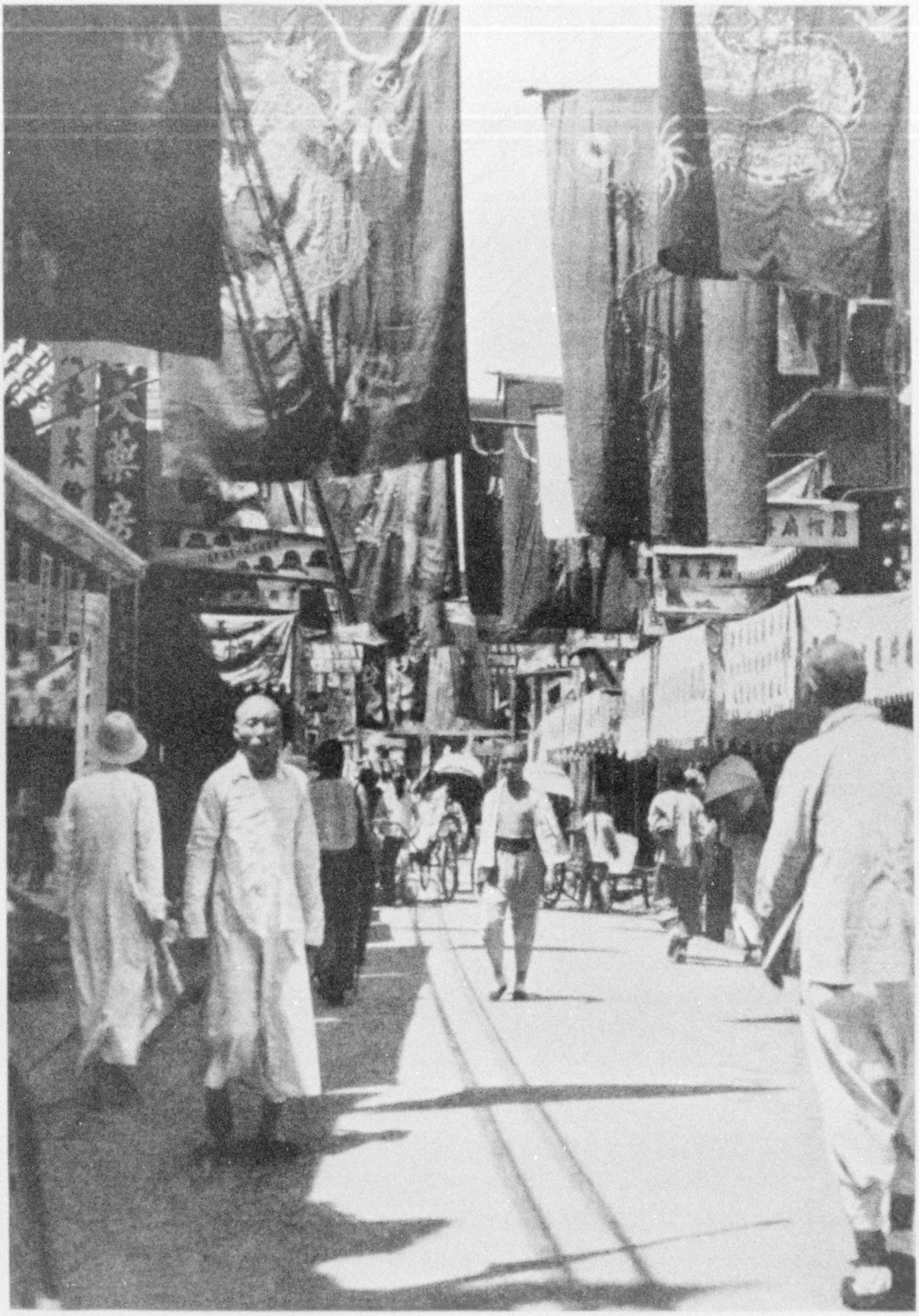
The story of the manner in which the American Committee on Public Information transformed Chinese opinion from neutrality or hostility to warm support of the purposes of the Allies is worth a separate article. The head of the bureau which was set up in Shanghai compiled



Photograph by E. L. Estabrook

THIS GIGANTIC DEITY GIVES COURAGE TO HER WORSHIPERS

Kwan Yin, the beloved Goddess of Mercy, is also known as the Taking-away-fear Buddha. She sits in the temple of Tafotse, near Pinchow, Shensi Province, beside the 65-foot statue of the Great Buddha, whose fingers and nails may be seen at the left. Both figures were carved from a red sandstone cliff, smoothed with plaster, then painted and gilded. The two men seated at the base of the statue of the goddess provide a "yardstick" by which to measure the mammoth proportions of the figure.



Photograph by J. T. McGarvey

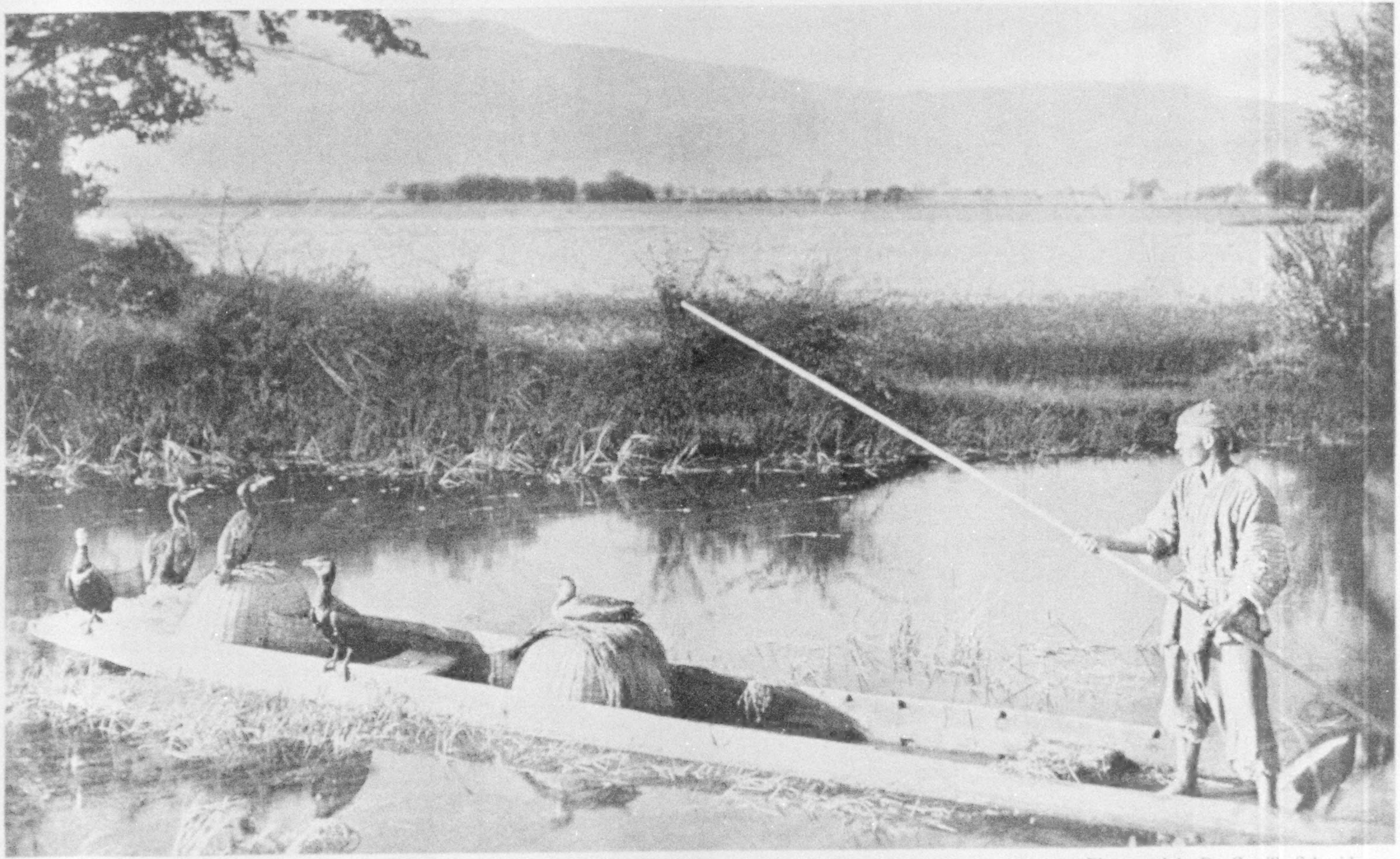
WHEN THE EMPEROR RETURNED TO THE THRONE OF HIS FATHERS

An attempt in July, 1917, to restore the monarchy gave the Dragon Throne back to the young Manchu emperor for a few days, after which he was once more consigned to the retirement of his "court without a kingdom." The Peking streets were appropriately bedecked in honor of the restoration. One of the many complicating factors in China's efforts to find herself as a united nation is that provincial loyalty has been highly developed.

Photograph by Maynard Owen Williams

SHIPPING CROWDS THE MIN RIVER AT FOOCHOW

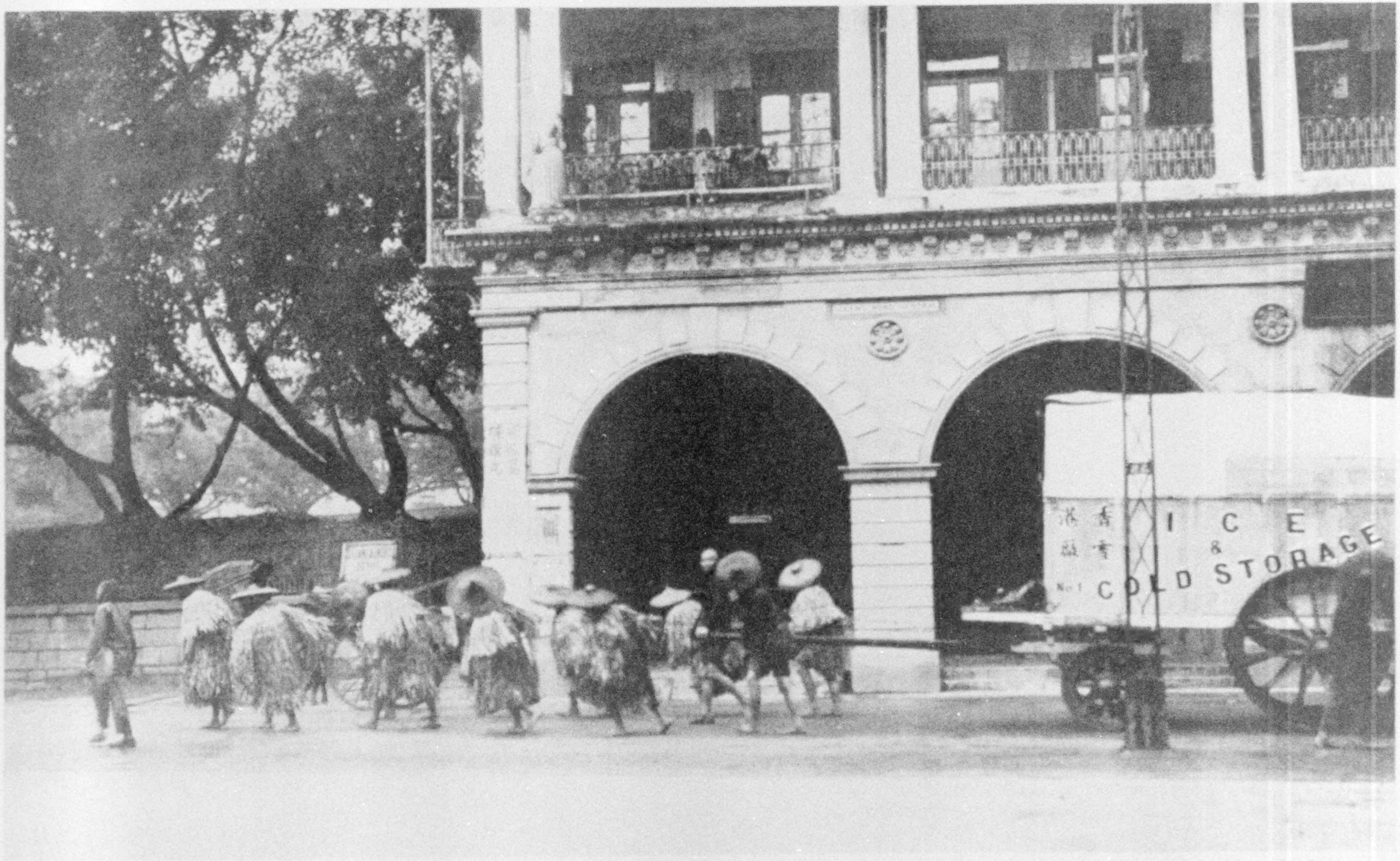
This treaty port of Fukien Province was opened to European commerce in 1842, and eleven years later the first cargoes of tea that were to make it famous sped across the ocean to America and Europe. The Min here is congested with junks, upriver craft, and sampans. Bandit activities have at times interfered with the junk traffic by causing the local military leaders to commandeer vessels and impress the boatmen into service.



Photograph by Dr. Camillo Schneider

FISHING WITH BIRDS ON THE RICE PLAINS

Cormorants have long been used in China as fishers and are specially trained for the work. They are taken out to a suitable fishing place in a boat, made to dive into the water after a fish, and to bring the catch back to their owner. A cord around the bird's throat prevents it from swallowing the fish.



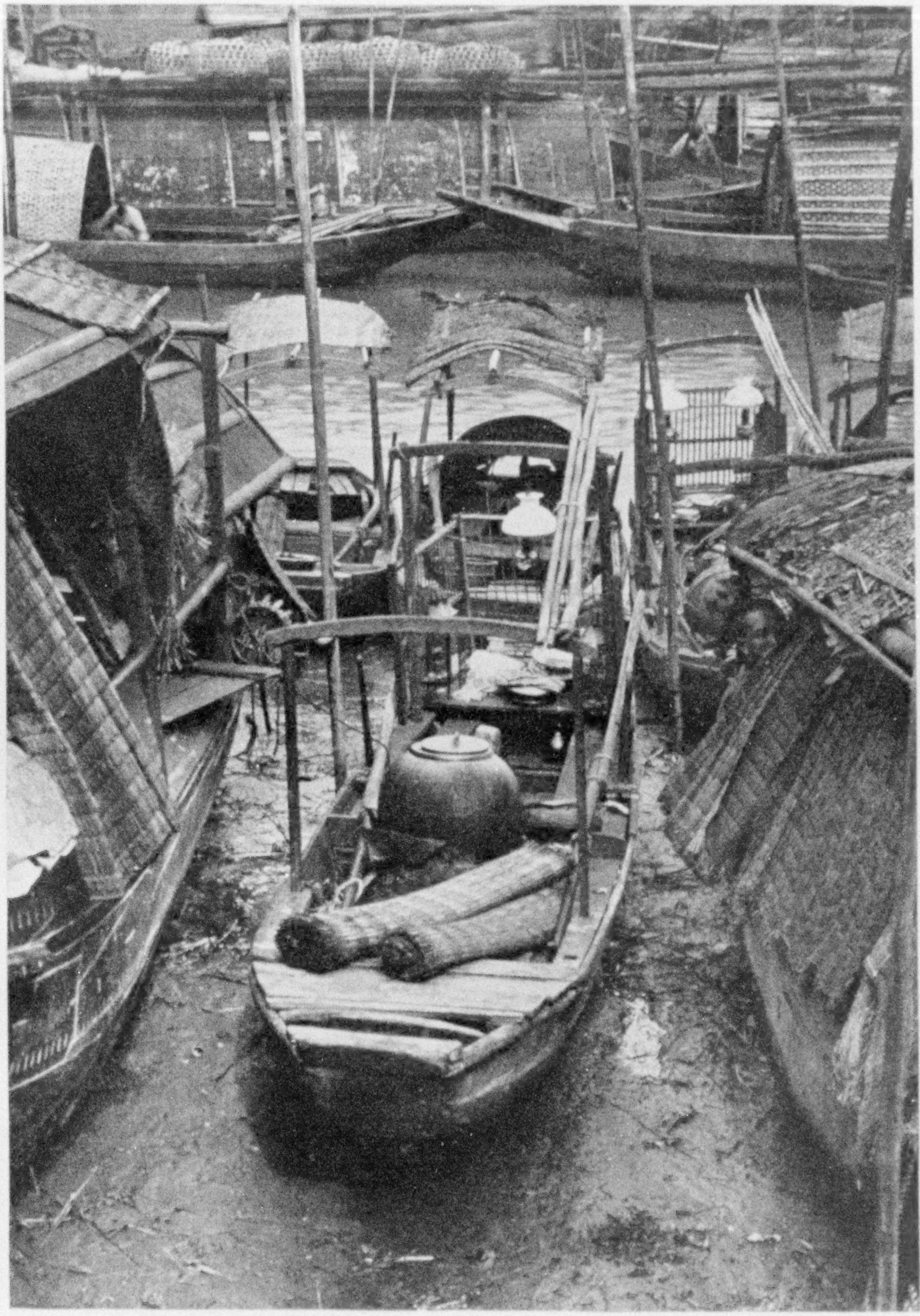
Photograph by Alexander Stewart

COOLIE "HORSEPOWER" IS THE CHEAPEST COMMODITY IN HONGKONG

Man is the dray horse, the pack animal, the beast of burden, yet he drudges cheerfully for long hours at a meager wage, and his lowly efforts have contributed largely to the prosperity of the treaty ports. In bad weather he slips on a raincoat of palm leaves and covers his head with an umbrellalike hat of bamboo, painted bright blue.

BASEBALL CAPTAINS IN A HIGH SCHOOL FOR CHINESE GIRLS AT CANTON

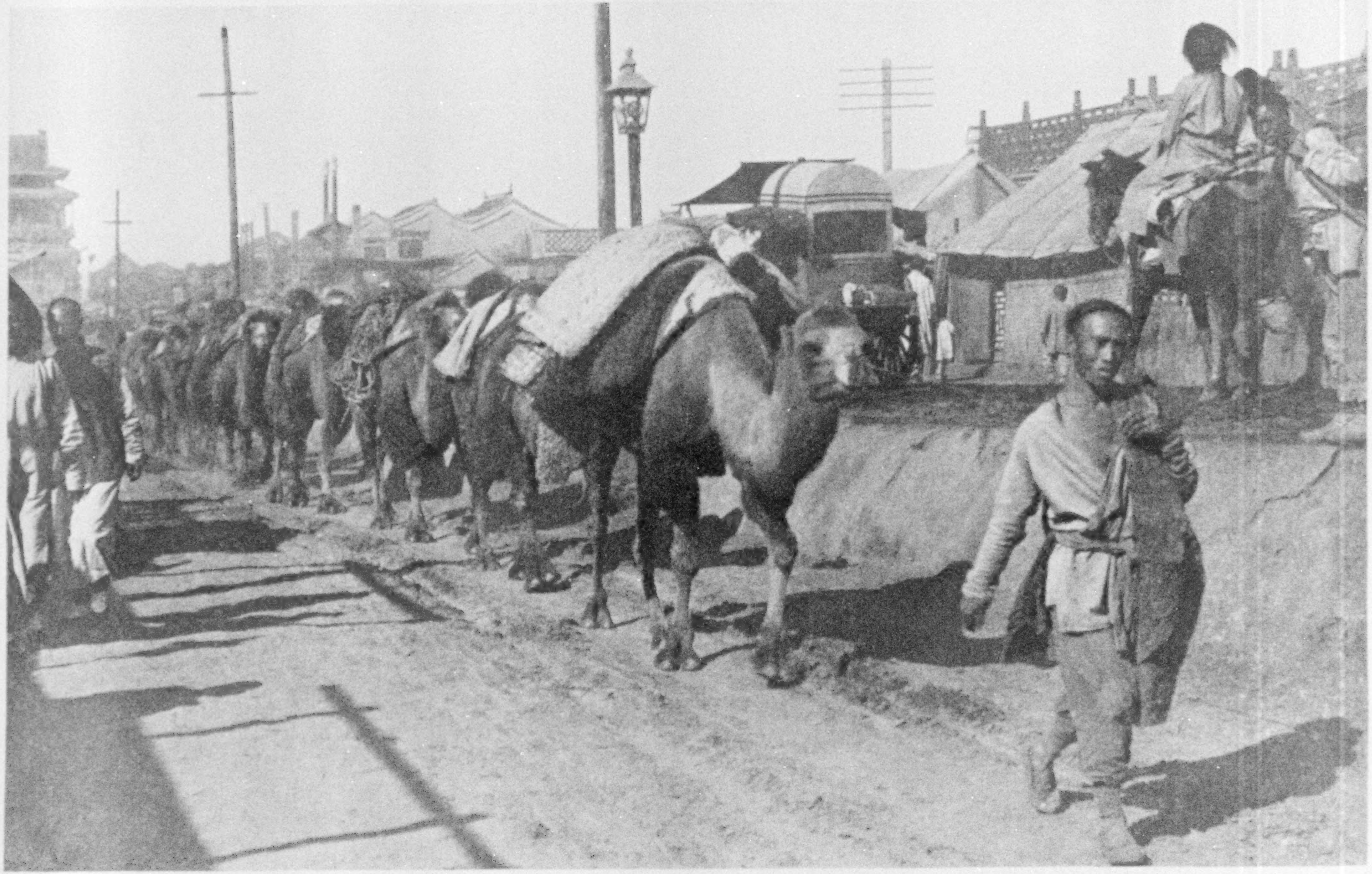
All of the 7,000,000 students of both sexes in the schools of China are potential recruits to the task of rebuilding the nation. Of the young women who have thrown off old restrictions, many aid in increasing the influence of the printed page by working in the mechanical departments of printing plants, translating foreign works, and writing textbooks.



Photograph by Robert F. Fitch

THESE CANTON CRAFT HAVE NURSERY COMPARTMENTS

During bad weather the mats rolled up on deck will be spread over the boat. In the center is a large earthen jar which ordinarily contains hot water for tea and cooking. The lattice work in the rear enables a child to play without danger of falling into the stream. Modern kerosene lamps lend a touch of the Occident to these unique craft.



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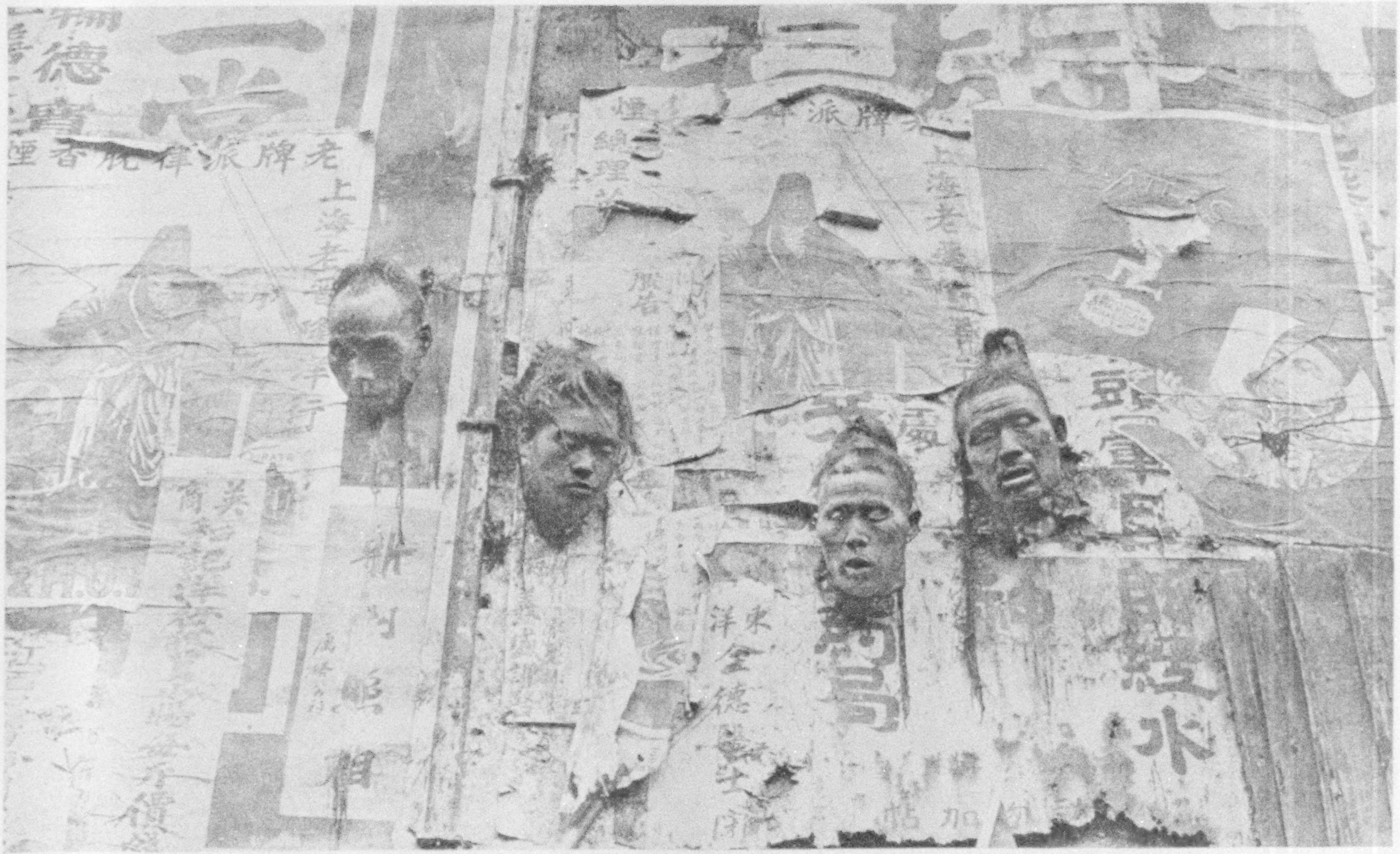
THE "COMMISSARIAT" CAMEL IS THE LONG-HAUL TRANSPORT OF NORTH CHINA

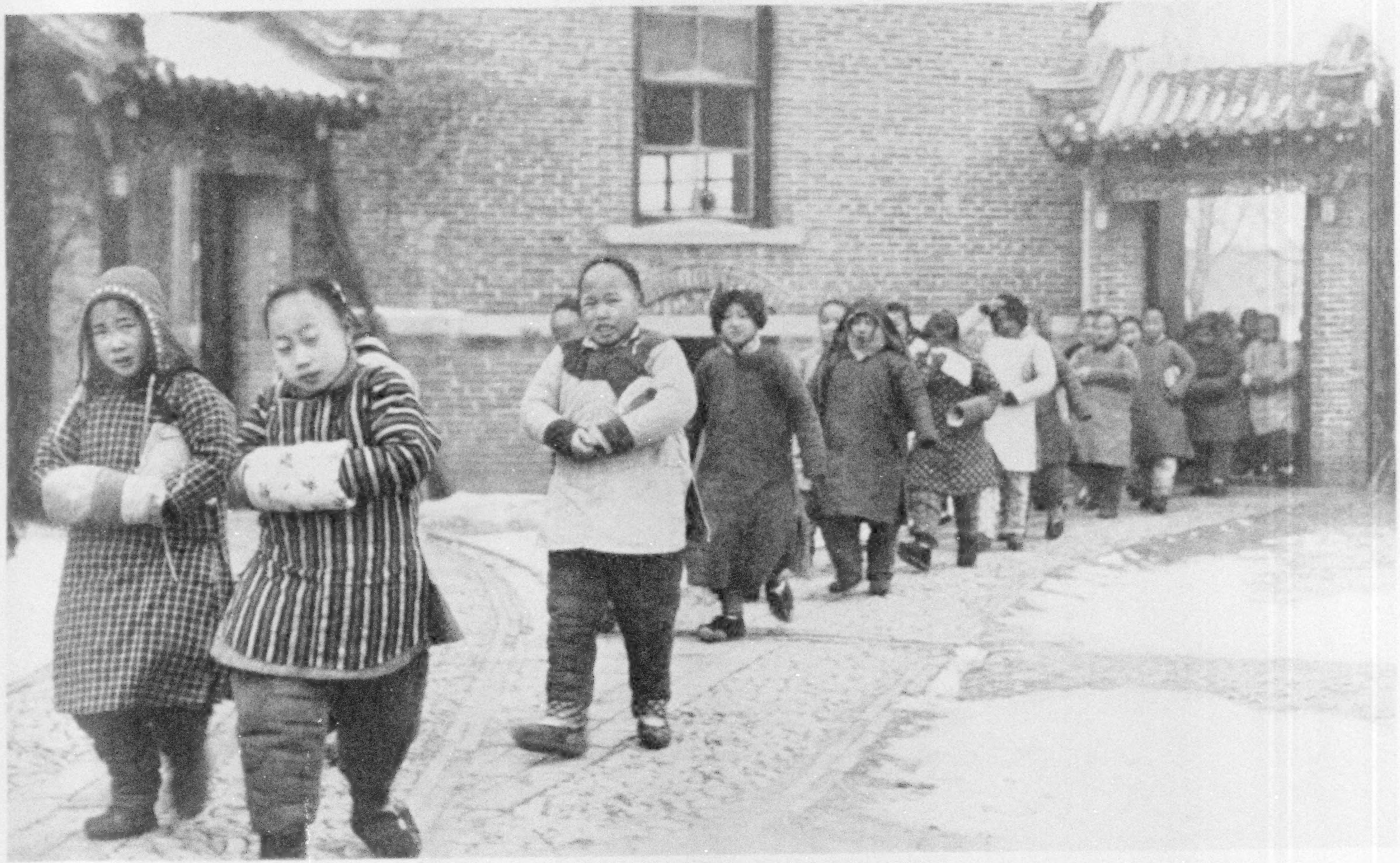
From the truck gardens, orchards, and mines 40 to 60 miles outside of Peking, files of these shaggy beasts plod in with their loads of vegetables and fruit, coal and charcoal. They usually have no return load, but sometimes take back a pile of grass mats, clothing, or other city products. Occasionally a dusty caravan stalks in from Kalgan, just inside the Great Wall, with a cargo which has been relayed through the desert. Just above the first camel appears the hooded Peking cart, the type of conveyance used by the more well-to-do classes of the city and surrounding villages.



Photograph from Claude Meacham

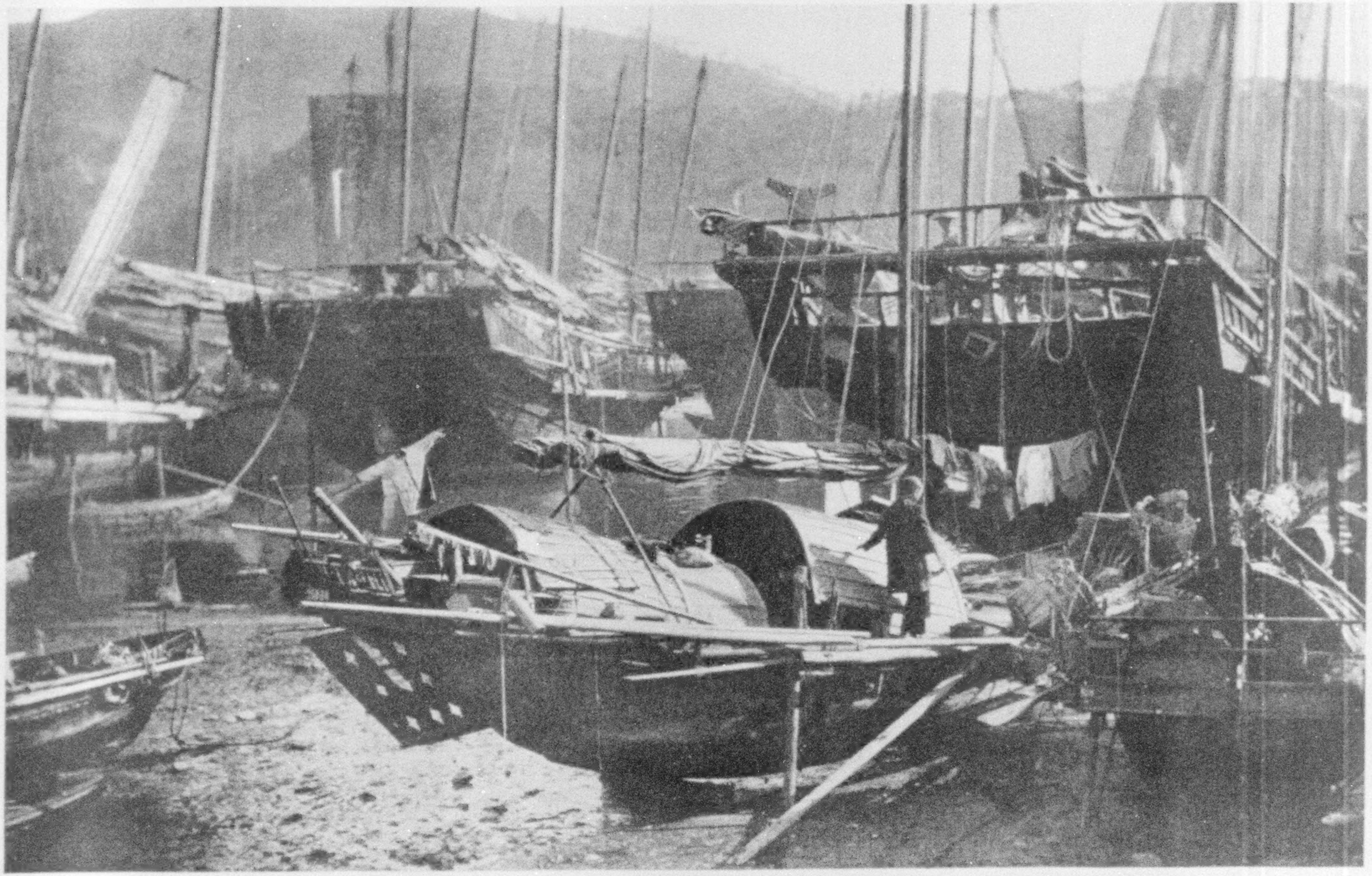
HEADS OF OUTLAWS POSTED ON A BILLBOARD AT NANKING

The Chinese consider that the worst form of death is to be beheaded, but if the condemned man faces his execution with contempt and lack of fear, he stands a somewhat better chance of appeasing the anger of his gods. The crime of which these men were convicted was theft.



THE NEW WOMAN IN CHINA GOES TO SCHOOL

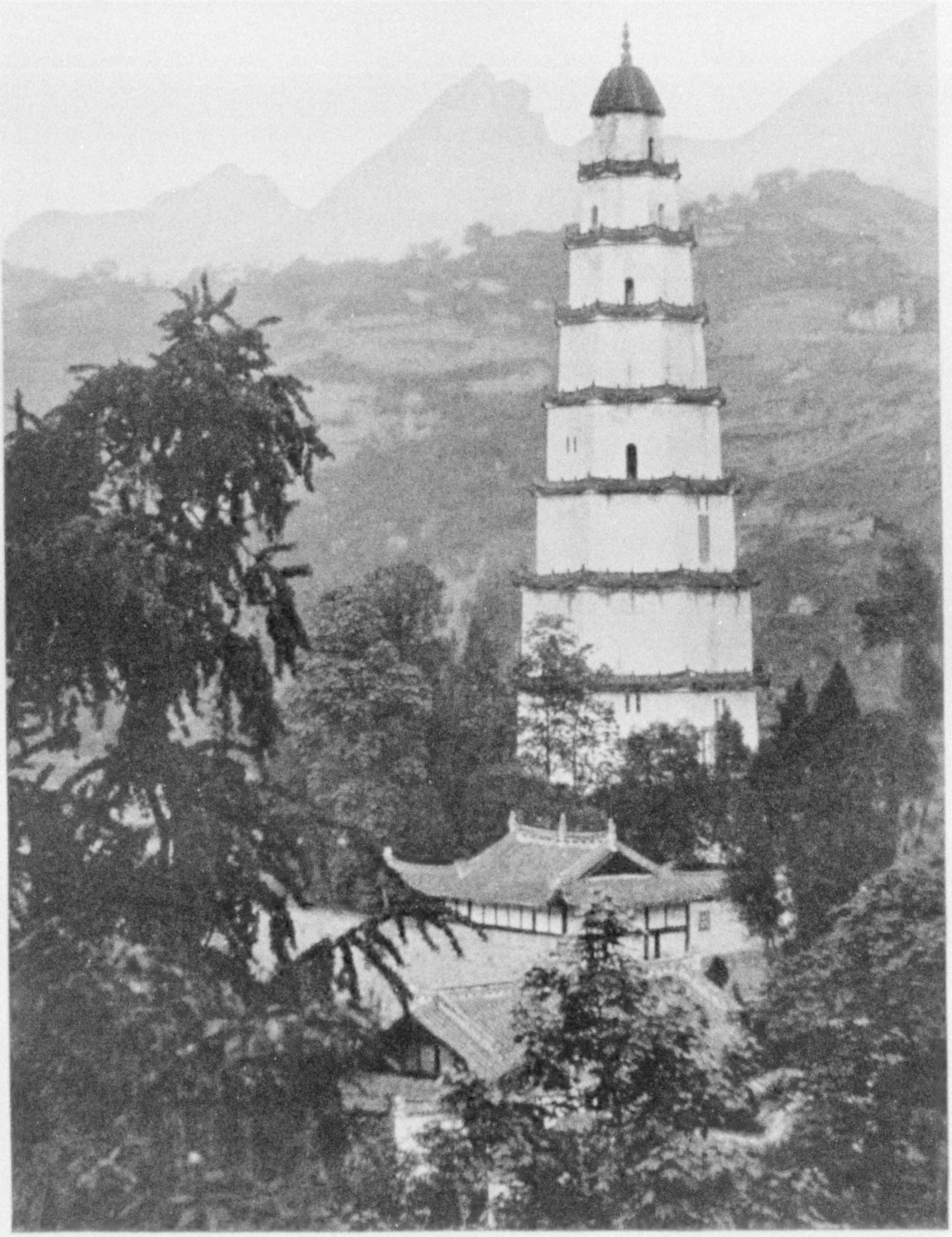
She is as yet small in numbers, but increasing in influence, many of those trained in mission schools and abroad having found opportunities to use their knowledge and abilities in business, professional, and social life.



Photograph by Robert F. Fitch

JUNKS OF THE FISHING FLEET AT ABERDEEN ISLAND, BACK OF HONGKONG

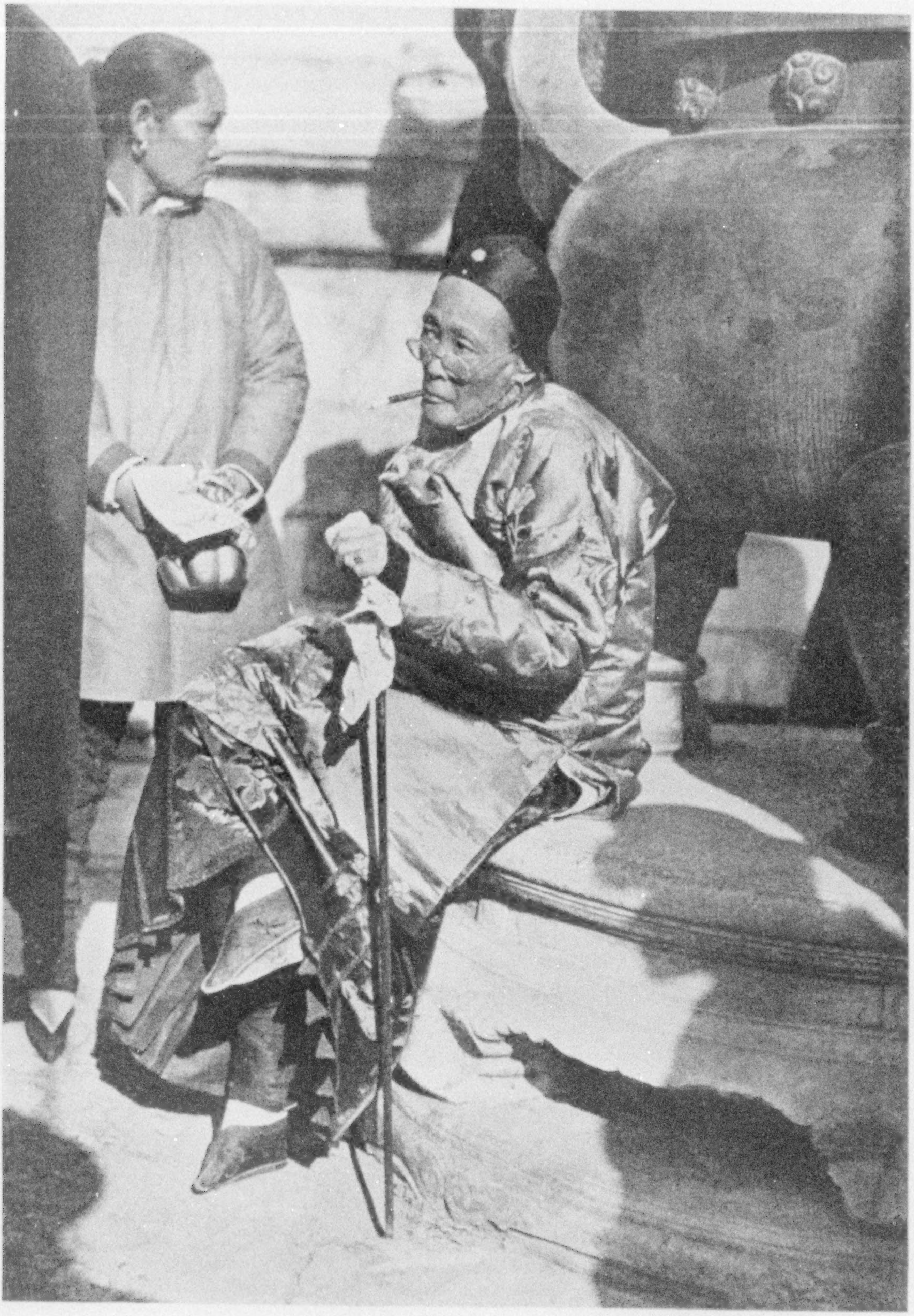
Nets and clothing are hung out to dry in the sun. The high poop in the stern of the junk and of many river craft enables the pilot to have a clear view of the boat's path, and to know what his men are doing. It brings the center of gravity to the rear, so that when the boat strikes a wave, it readily rises to the crest.



Photograph from Joseph Beech

A PLAYGROUND FOR AN INLAND SEAPORT

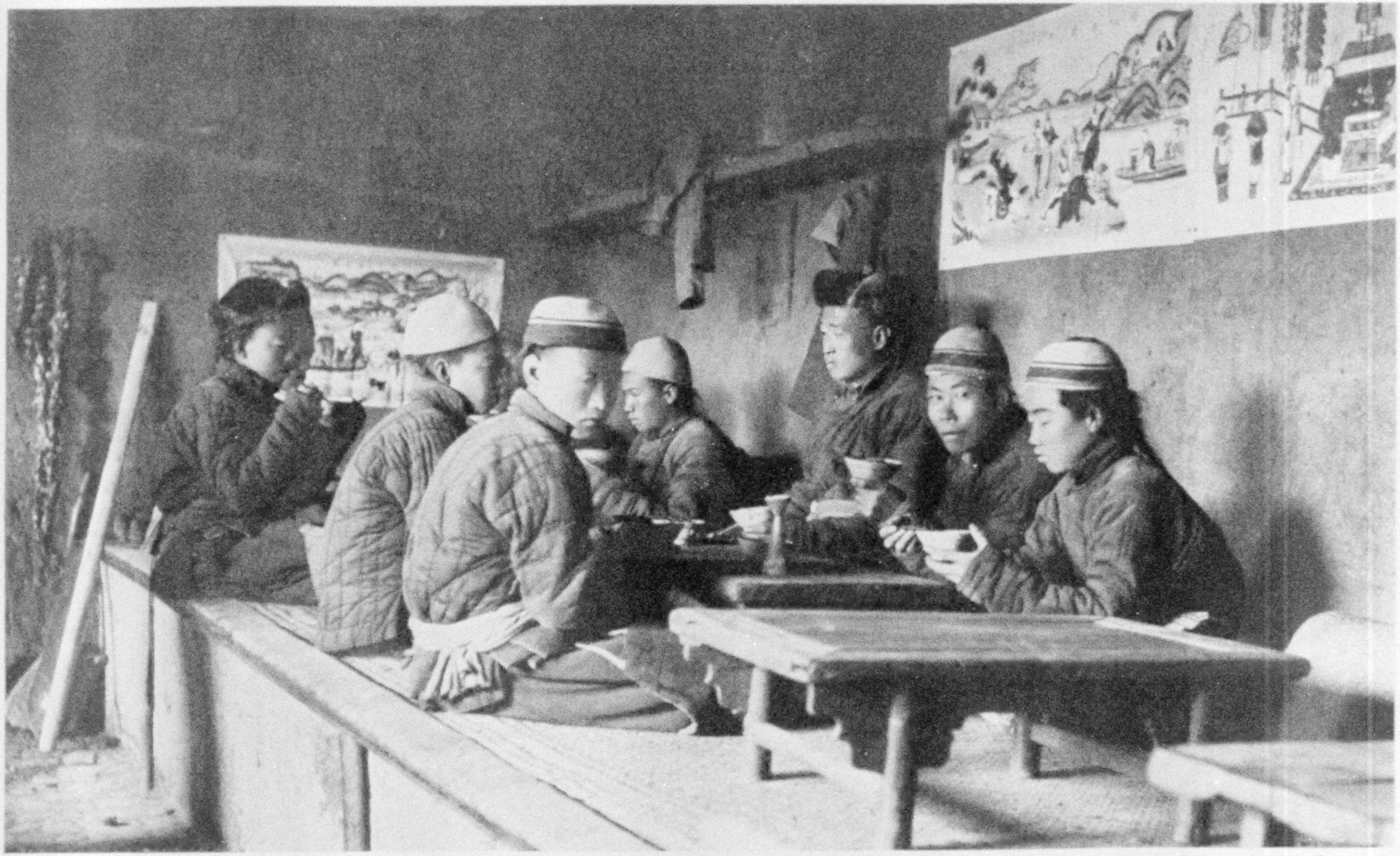
The Pagoda of Chiaolinsz, in the mountains opposite Chungking is more often frequented by picnickers than used for strictly religious purposes, its park furnishing a recreation outlet for the city's crowded population. Chungking is the treaty port for Szechwan Province (see "The Eden of the Flowery Republic," in the National Geographic Magazine for November, 1920) and is 1,400 miles from the mouth of the Yangtze.



Photograph by Sidney D. Gamble

A WELL-TO-DO CHINESE WOMAN WATCHES A PARADE IN THE FORBIDDEN CITY

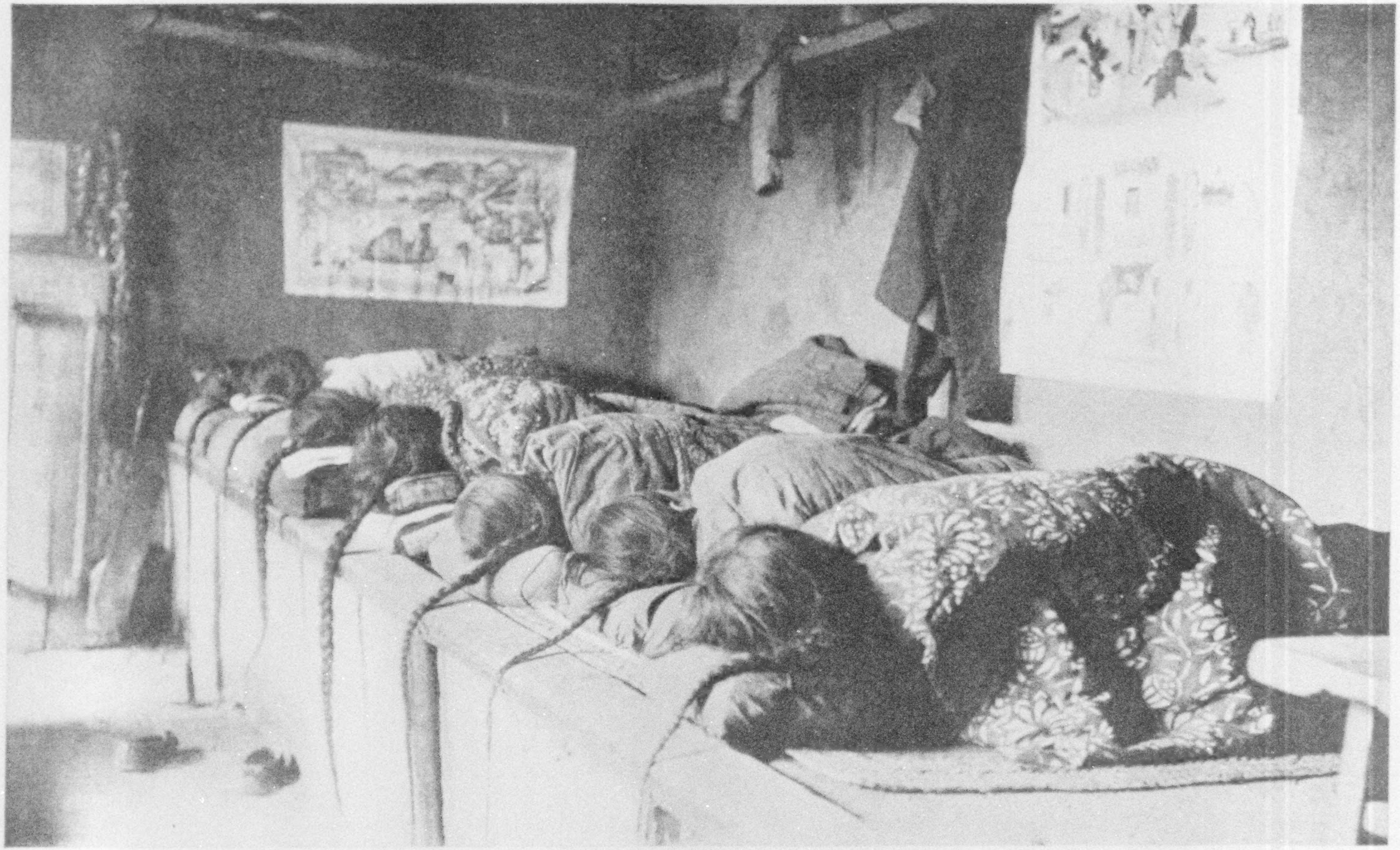
A servant is standing in the background holding a brass hand-warmer filled with glowing charcoal, for use in case her mistress' ungloved hands should become chilled. Note the elaborately embroidered robe and the constricted feet. The chances are that the lady's spectacles were obtained not from an oculist, but at a fair, where one pair of glasses after another was tried until one was found that seemed to improve the vision.



Photograph by A. Segers

IN THE TAVERNS OF NORTH CHINA MEALS ARE SERVED ON TOP OF THE FURNACE

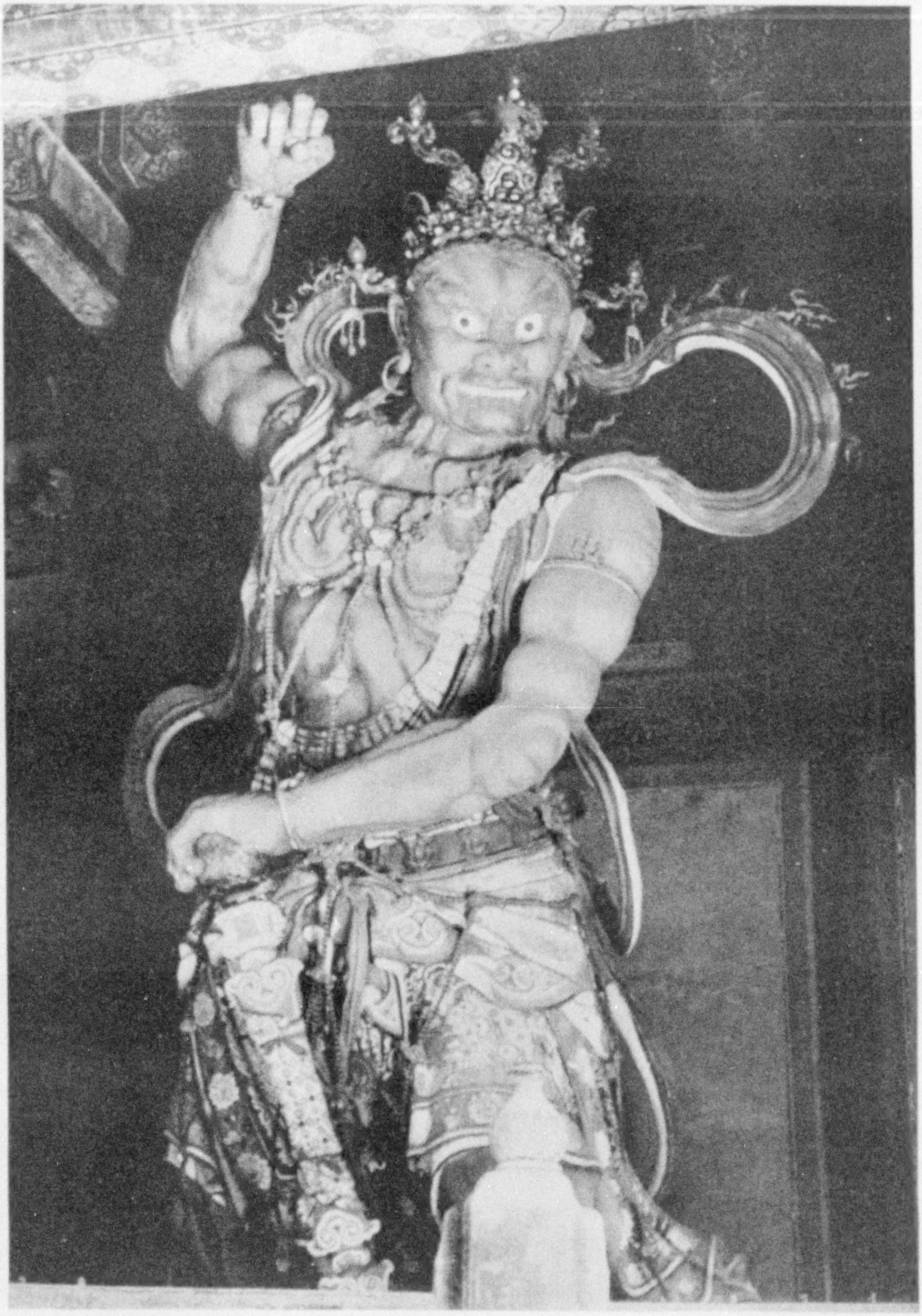
The heating plant, or *kang*, is a masonry platform 10 feet or more in length, 6 feet wide and 2 feet high. At mealtimes small, low tables are placed upon it, and at night numerous mats convert it into a warm, hard bed for family and guests (see illustration on opposite page).



Photograph by A. Segers

THE NATIVE CHINESE'S EQUIVALENT OF "ROOM WITH BATH"

There are no beds in the small inns, only the *kang*, a stone bed hot on the surface. If a man is rich, he supplements the mat bedding with the skin of a dog, a wolf, or a fox. The coverlet is wadded in the winter. The cushions used for pillows are filled with millet and are very hard. While the queue has practically disappeared in many parts of China, it is still to be seen in country villages away from the coast. (See, also, "The Hairnet Industry in North China," in the NATIONAL GEOGRAPHIC MAGAZINE for September, 1923).



Photograph by J. T. McGarvey

HE FRIGHTENS AWAY EVIL SPIRITS FROM TEMPLE GATES

Apart from ancestor worship, religion does not enter largely into Chinese life, but manifold superstitions based upon a belief in the good or evil influences of departed spirits exist everywhere. Confucianism is really a system of ethics, Taoism has developed into one of magic, while Buddhism has fallen from the lofty plane it once occupied.

lists of newspapers that would use a free press service and lists of prominent Chinese to whom might be sent important documents dealing with the war.

American Government wireless sent the speeches of President Wilson to the Far East, and for the first time the American point of view had an adequate presentation to the Chinese public.

The effect was magical. Even the failure of the Peace Conference to give actuality to the promises that were believed to be contained in the principles of Mr. Wilson did not wholly eradicate the effect of the work.

ONLY TWO SOURCES FOR CHINA'S NEWS SUPPLY

Another, and more dangerous, attempt to control Chinese opinion is to be seen in the domination of the news supply of the country. Generally speaking, the problem of public opinion is a problem of the control of the sources of news. The Chinese newspaper has passed the point where it can be a mere "journal of opinion." It must present *news*.

At the present time it is practically dependent upon two sources. One is that supplied by the Reuter Agency, a British company which has had a virtual monopoly since the elimination of the German service. This is the service used by the papers published in English, but it is too expensive for use by the majority of the Chinese papers. They can take advantage of it only by translating articles seen in the foreign dailies and reprinting them after their value as news has largely passed.

From an American standpoint, the value of the Reuter service is very limited, as the London office from which it issues is more interested in the results of a race run at Epsom Downs or the make-up of Lady Somerset's week-end party than in political or economic developments in the United States.

With Reuter's closed because of the high cost, the Chinese editor has practically only one other resource. He has to accept the news service offered by the Japanese. The rates are very low, and in some cases it is given free, when there is a reason for doing so. In more than 300 of the 450 daily newspapers published in China, this is the service used. To be sure, there are Chinese services, but these are still so undeveloped as to be unsatisfactory.

The Japanese, with their offer of cheap news, almost control the field.

The Students' Movement of China has relied for its influence upon two forces—the power of the press and the power of the voice. Student orators have lined the streets of the cities, telling the tale of the weakness and corruption of the central government, and papers and pamphlets have been used to penetrate where the voice could not.

More interesting is the so-called Renaissance Movement, which centers in the National University of Peking. A hundred years from now the historian may speak of this movement as the most potent force in the making of New China.

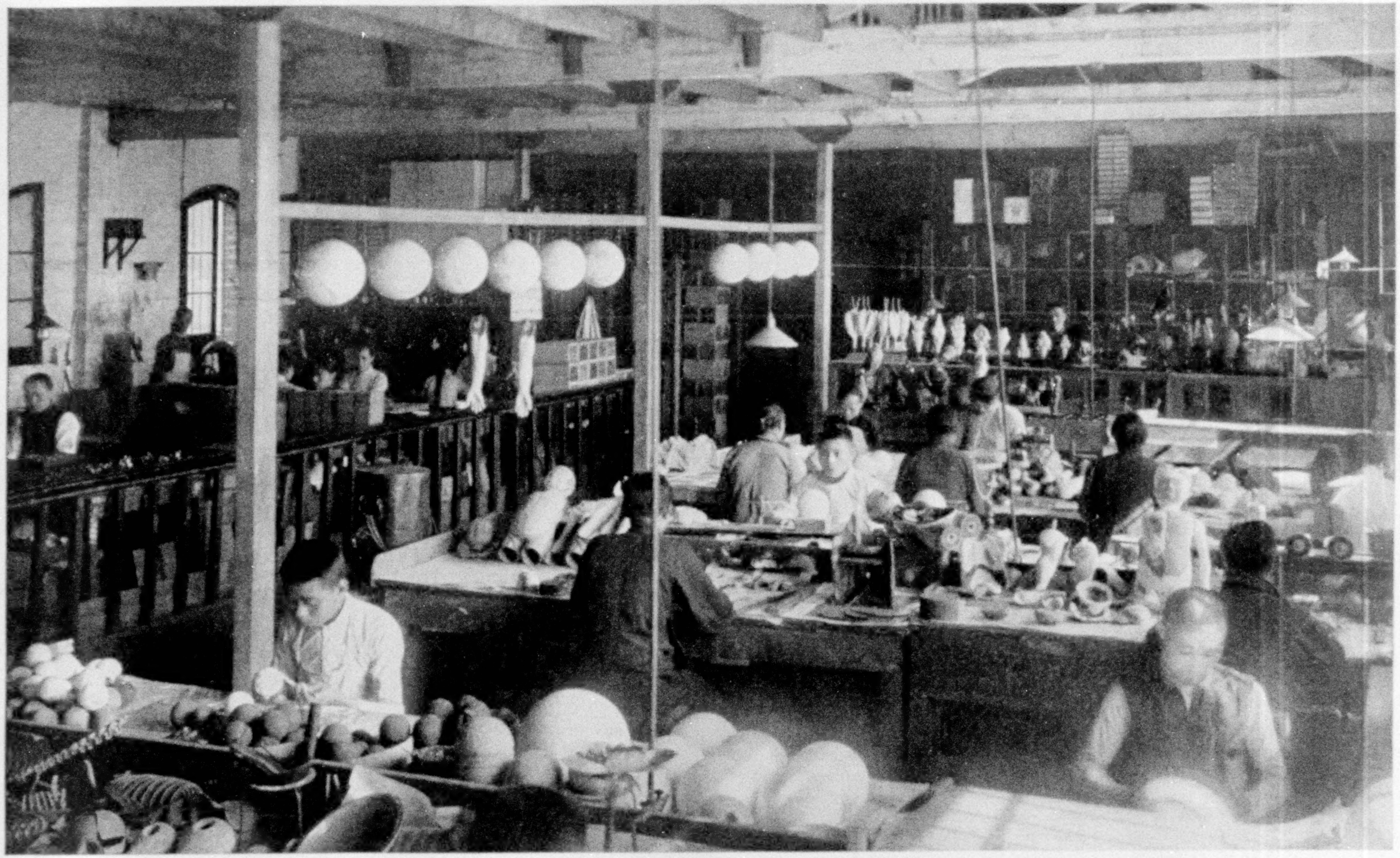
It is almost entirely a literary movement. Its purposes are not primarily political, as are those of the Student Movement; but they are more likely to change fundamentally the political order.

Essentially the Renaissance Movement is a revolt against authority. Old beliefs of all kinds are attacked—in the realm of religion, philosophy, social relations, and literature.

The outstanding figure is Dr. Hu Shih, a brilliant scholar, educated in America, whose fine ideals and untiring energies have aroused a response in every student center in China. Behind him stands Tsai Yuan-pei, formerly Chancellor of the National University, who, upon the advent of the Southern army into Shanghai a few weeks ago, was made the central head of the new civil government for the whole province. Practically all the faculty of this school is engaged in setting the purposes of the movement before the nation.

RENAISSANCE MOVEMENT ABANDONS OLD LITERARY FORM

In the realm of literature, a striking characteristic of the Renaissance Movement has been the abandonment of the literary form (Wen Chang) of the ancient classics, written by sages and used by famous writers of various periods, in favor of Kuo-yü, or colloquial speech. Only a scholar can write well in the lit-



Photograph from Paul Hutchinson

ANATOMICAL MODELS ARE AMONG THE PRODUCTS OF SHANGHAI'S LEADING PUBLISHING CONCERN

The increased interest in modern medical practices has created a demand from schools and students for these models, but Chinese physicians used other less elaborate ones long ago. Small ivory, wood, or bronze figures of the human body were employed by ailing ladies of the better class on which they might indicate to the doctor attending them where lay the seat of their trouble. Since he was not permitted to see the sick woman, she would thrust her hand through a curtain opening, so that he might feel her pulse, and would then lay her finger on that part of the figure that corresponded with the part of her own body that was affected.

erary form, which is too difficult for an ordinary student to understand.

Naturally, this innovation has been bitterly resented in some quarters. But a "History of Chinese Philosophy," written by Dr. Hu Shih in this simple but dignified style, largely in order to demonstrate its availability for any sort of writing, became China's best seller. And there are now some 300 periodicals—daily, weekly, and monthly, with a few single numbers—being issued in the same style and finding an eager reading. The battle to establish Kuo-yü in place of the Wen Chang seems almost won.

The most influential periodicals in China to-day are those issued by the Renaissance Movement. They have adopted the use of the spoken language at a time when there is a tremendous audience hungry for literature in that form.

It is not realized in the West that in China there is the largest national group speaking a single language—Mandarin—to be found. It is not realized that, even with 90 per cent of illiteracy, there is still a public of thirty millions able to read in Mandarin.

It is not realized that there are more than 7,000,000 students in the schools, all of them potential recruits to the cause championed by the Renaissance leaders. And the West knows very little about the efforts to increase even this large audience.

NEW FORM OF WRITING COMBATS ILLITERACY

As an example, consider the so-called national phonetic script and its promotion. Little has been printed about this in America. To read what some enthusiastic writers have written, one would think that China is being swept into a new form of writing which will wipe out illiteracy and the ancient ideographs within a few years. The fact is that the purposes of the national phonetic script are, primarily, different.

The national phonetic script was devised to provide a set of symbols by which it might be possible to teach Chinese in all parts of China to pronounce Mandarin in the same way. Communications are so difficult that pronunciations vary throughout the country, although fundamentally the language is the same, except in a few sections along the coast.

The second purpose of the promoters of the national phonetic script was, by the use of these symbols, to teach Mandarin where other dialects are now spoken.

The enthusiasm of the Chinese for the script has largely confined itself to these two purposes. It has been the missionary, with here and there an enlightened official, who has seized upon it as a means of combating illiteracy (see page 693).

Enthusiastic reports of foreigners as to the success of the national phonetic script need to be taken with a grain of salt. To the Westerner the conception of an alphabet of 39 symbols in place of more than 200 radicals (corresponding to Western alphabets), upon which all Chinese characters are based, seems bound to capture the support of anybody.

But it is going to take a long time to convince 400,000,000 people that the invention of a little group of reformers is better than the time-honored characters of the sages.

It is true that the phonetic is being pushed, especially by the missionaries. But there have been only a few thousands who have been, so far, taught to use it. In some future day it may come into its own, but the person who expects the national phonetic script to sweep the country in this generation is going to be disappointed. If all other objections were removed, the constantly repeated charge that it strongly resembles the system of the Japanese would be enough to hinder its progress at present. Nevertheless, it represents one of the attempts being made to secure an educated public opinion.

As for the efforts of some missionaries to push the writing of Chinese in Roman letters, it is enough to say that, except in certain small communities, the enterprise has made little headway.

A PUPIL'S BOOKS FOR ONE TERM COST ONLY SEVEN CENTS

For a sense of the importance of the printed page in New China the observer should consider the Commercial Press. Founded in 1896 by a small group of Chinese who had been trained in the foreign press of Shanghai, this concern has grown until it now has a paid-up

Photograph by Maynard Owen Williams

SOLDIERS ON THE MARCH EMPLOY A BRIEF BREATHING SPELL TO READ BILLBOARDS

capitalization of $5,000,000 Mexican, 34 branches and more than 1,500 agencies, and a central publishing plant which is one of the wonders of China.

The visitor who does not see the 20 acres of printing activity carried on by this concern in Shanghai is missing something as significant as the Temple of Heaven (see pages 691 and 697).

The employees in the production end of the business number about 3,000, with another 500 in outside concerns working under contract; the annual volume of sales is more than $5,000,000; the output runs the gamut of books on ethics, politics, economics, history, geography, science, mathematics, languages, manual training, dictionaries, and so on, and there are even departments that make anatomical and other models for school use and toys for the general public (pages 692, 718).

The firm is noted for the interest which it takes in the welfare of its employees.

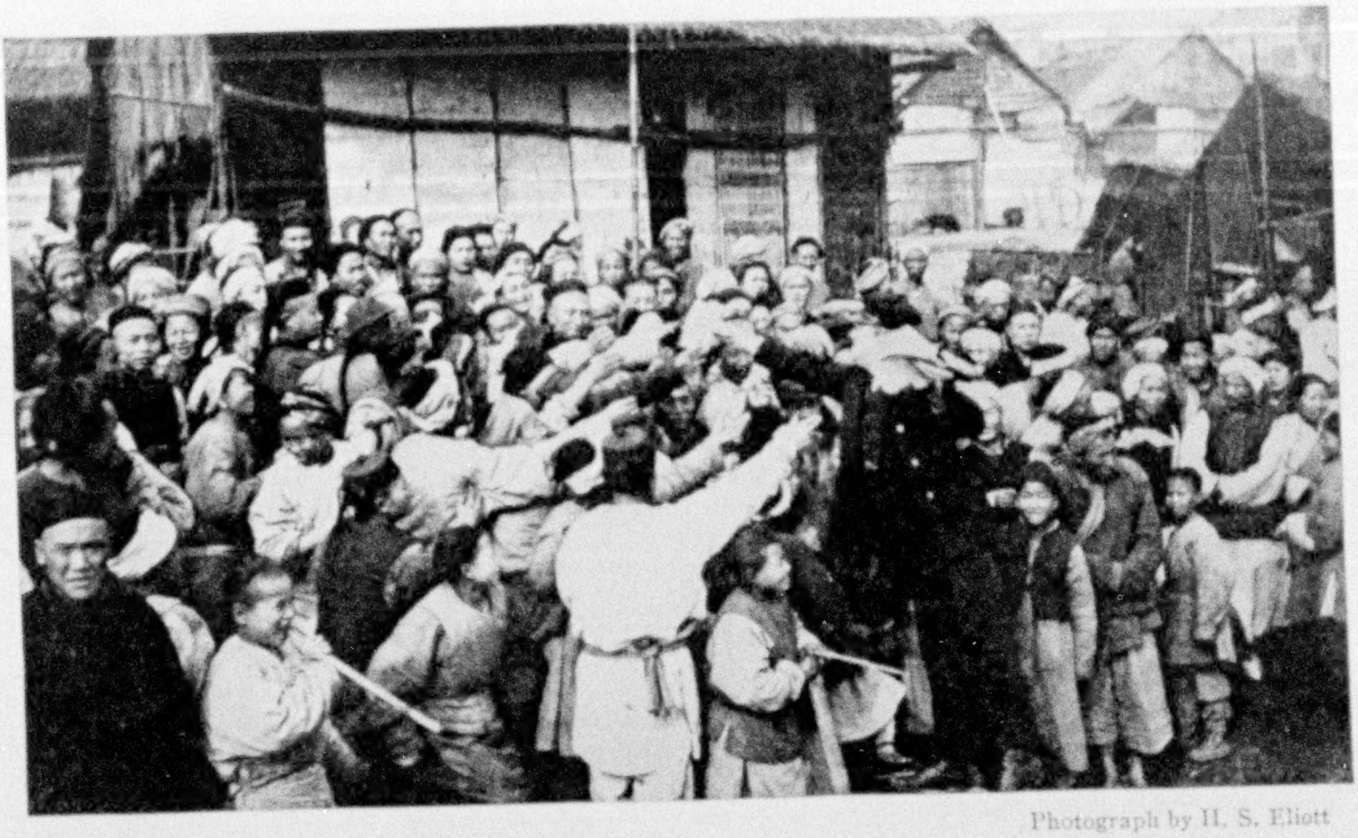
The Commercial Press prints most of the textbooks of the students of the Republic. It prints them at a lower price than they can be purchased in any other country in the world, and thus it makes possible an education for millions of children in a country where the majority of the people are desperately poor.

A pupil in a government lower primary school can buy for seven cents all the books needed for a term. In a higher primary school the cost need be only 13 cents a term. Production on an immense scale makes such prices possible.

If the Commercial Press suggests the importance of literature in the New China, the *Shun Pao* may be used as an illustration of its stability. Hundreds of papers die an early death in China. This is inevitable in an industry as young as that of journalism; but the *Shun Pao*, with its 55 years of history, shows that the worthy papers are winning through to permanence. Its five-storied reinforced concrete office building challenges comparison with any American newspaper plant.

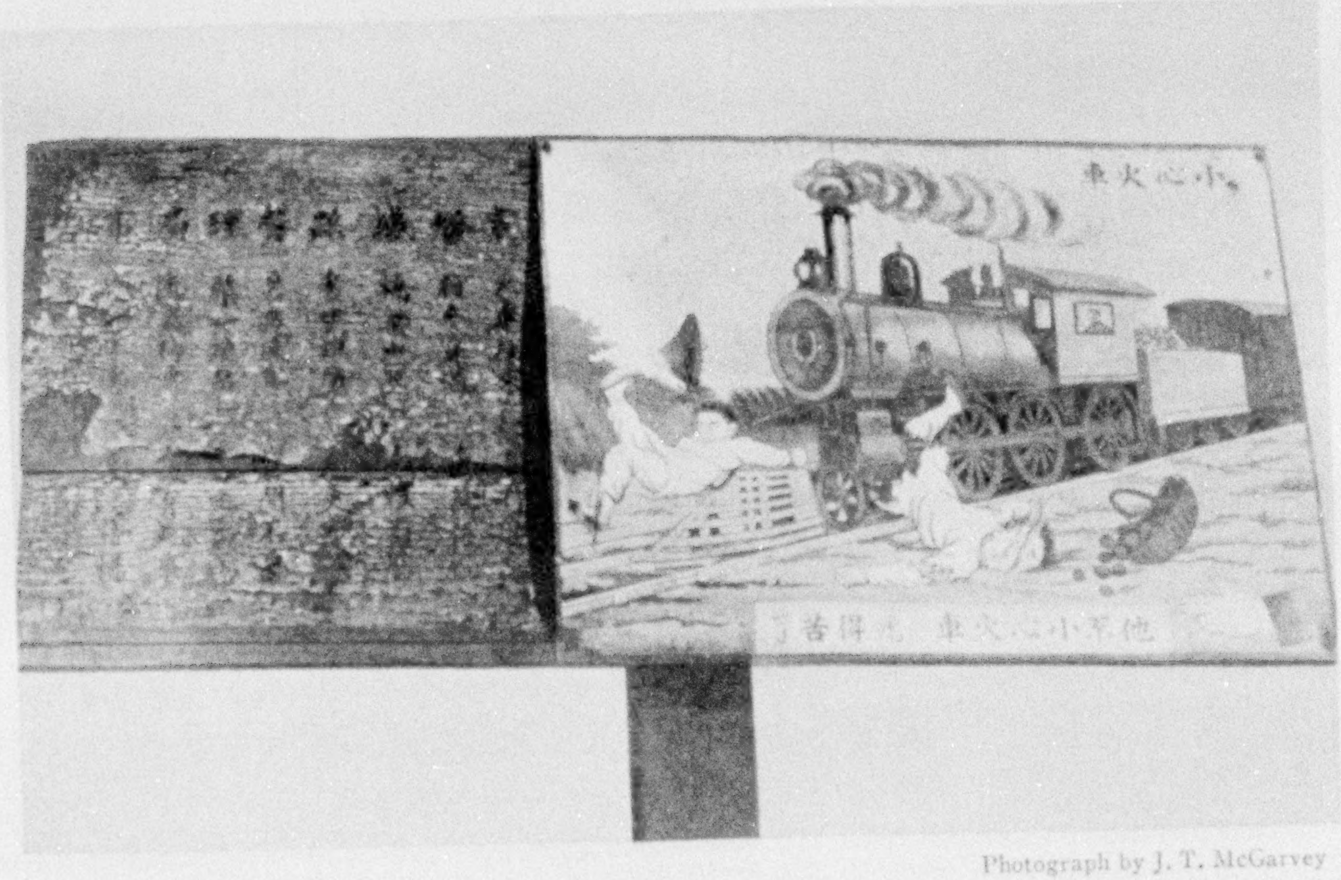
Its machinery is of the latest type, even to the rotary press which delivers 48,000 copies of a 12-page paper in an hour. The Western reader may be interested in one of its "Ten Great Features," as set forth by its business department:

> It is a fact that the foundation of a democratic government lies in political parties and public opinion, and the latter especially



Photograph by H. S. Eliott

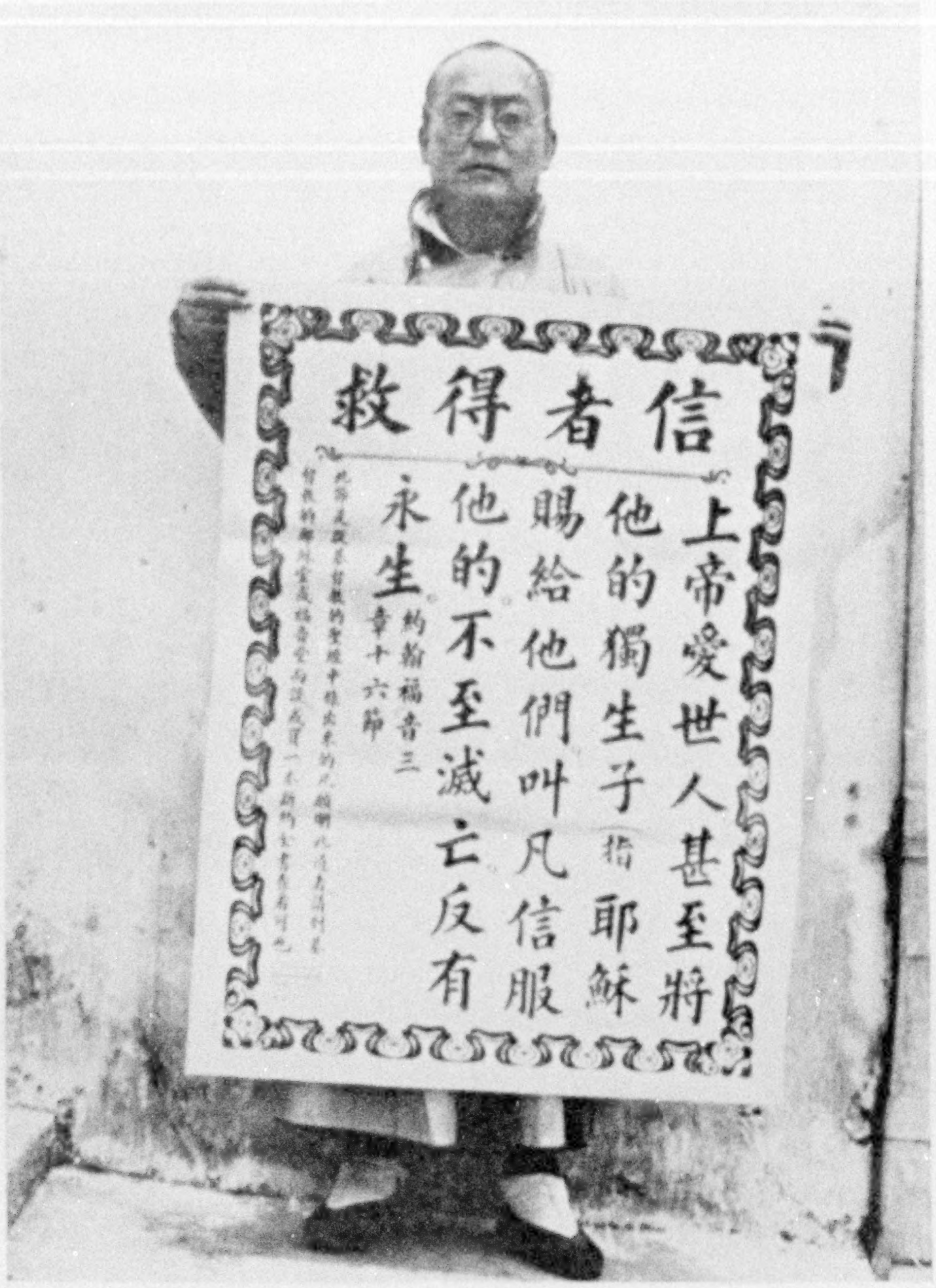
A FOREIGNER DISTRIBUTES RELIGIOUS TRACTS IN A TOWN OF THE YANGTZE VALLEY



Photograph by J. T. McGarvey

A "STOP, LOOK, AND LISTEN" WARNING SIGN IN CHINA

With a population nearly four times as large as that of the United States, China has only about 3 per cent of the railway mileage of this country. Both the government and the people opposed the advent of the railways into the then "Celestial Empire," and the death of a coolie who was run over by the first engine caused such indignation among the populace that the local authorities forcibly purchased the road from its foreign owners, tore up the rails, and dumped them, together with the rolling stock, on the seashore of Formosa (Taiwan). This pictured accident should be a horrible object-lesson to speeding chair-carriers and ricksha men.


信者得救
上帝愛世人甚至將
他的獨生子（指耶穌
賜給他們叫凡信服
他的不至滅亡反有
永生
約翰福音三章十六節

Photograph by Maynard Owen Williams

PREACHING THE GOSPEL BY POSTER

Poster publicity is not a new development in China, however. More than a thousand years ago certain retainers of the Imperial Court took advantage of their peculiar opportunities for securing interesting and authoritative information to set forth on placards the choicest titbits of news regarding the doings of the "King of Heaven." With these they paraded the streets of the capital, allowing the masses to peruse them. In modern times missionaries have found this method effective in setting forth their messages to the people. This poster is proclaiming to all who can read, the promise contained in the Gospel according to Saint John, 3: 16.

> should have an independent spirit. To attain this end, it is always the aim of this paper to lay special stress on industry and education. Its editorials are upholding justice and peace and its telegrams and correspondence are always based on true facts. It has never had any connection with any party; its business is entirely dependent upon its own regular income; and it has never received nor will ever receive any kind of subsidies.

If the Commercial Press shows the importance of the printing industry in the life of New China; if the *Shun Pao* shows its permanence, then *La Jeunesse* shows its power.

Here is a single monthly, published by the Renaissance Movement, dealing with subjects that the ordinary American reader would dismiss as "highbrow." But it is molding the character of tens of thousands of students to-day. I have found it being read as eagerly in the non-Mandarin-speaking regions of South China as in the north.

Of course, there are difficulties in the way of the new movement. There is the vast inertia of 270,000,000 people in Mandarin-speaking regions alone who are unable to read. There is the capricious censorship, whereby a political clique or an irresponsible general can clap into jail any editor or seal the doors of any paper that becomes too boldly critical.

With dangers without and within, the press of New China is working out its destiny. What that destiny will be depends largely upon the outcome of the present struggle between the reactionaries and the progressives. In fact, the fortunes of the periodicals are a part of that struggle.

If the progressives win out, the effort to substitute the colloquial language for the ancient Wen Chang as the means of expression seems likely to win. This may mean a unified national life under the salutary criticism of a true body of public opinion.

HOSPITALITY OF THE CZECHS

By Worth E. Shoults

A WHEEZY little engine with its toylike train of cars runs from Praha (Prague), capital city of Czechoslovakia, to the old town of Rakovnik, 75 miles away, through forested and castle-crowned hills and across occasional stretches of rich meadowland.

A member of the family which I was to visit in Rakovnik had sent word from America of my coming and had set the time, so I had reason to believe there would be some one on hand to meet me. Two young men near the far end of the station platform suggested a reception committee; except for me, they seemed the only persons present who were at all uncertain of their ground.

One was slender and blond, the other sturdy-built and dark. Both were of medium height and bareheaded.

Their "costumes" dealt a terrific blow to my preconceived and storybook notions of Bohemian village attire. Instead of the bright-hued vestments I expected, they wore neat gray trousers, frock coats, and wing collars.

I approached them and rather hesitantly, for I spoke no Czech, pronounced their family name. They smiled pleasantly in unison and called mine, and, having thus established our respective identities, they ranged themselves on either side of me and we set off at a brisk pace for their home, nearly a mile distant.

Neither of them knew English, and it took only a few words to discover that they didn't understand French—at least not the kind I spoke. As a matter of fact, one spoke only Czech, while the other spoke Czech and German. The complicated lingual situation may suggest that our journey was a silent one; but Brother Vaclav poured a torrent of Czech in my left ear, and Brother Boloslav kept up a lively attack in German on my right, neither at all concerned over my very obvious lack of understanding of either.

Bewilderment at this verbal onslaught finally gave way to a certain shame that the English language should be thus put to rout. So I talked back spiritedly about things in general, mostly in English, but with now and then a phrase or sentence of French, until a passer-by might well have mistaken us for a miniature League of Nations out for an airing.

Twenty minutes of combined talking and walking brought us to a small plastered house on the outskirts of the town. It was set back a short distance from the roadway and surrounded by about two acres of garden and fruit trees. The entrance to the house was through the kitchen, and ranged about the door were the eight members of the household who had not come to the station. I was introduced to my hosts in the order of age, commencing with the old mother and finishing with two attractive grandchildren.

THE INTERIOR ARRANGEMENTS OF THE PEASANT HOME

The house, much like many of its neighbors, consisted of two main rooms and a loft. In an adjoining shed the eldest son carried on his trade as a potter.

Among the Czechoslovak peasants the kitchen is the real living room and center of family life. In the home of my hosts it contained, in addition to a large stove, two beds, a cupboard, and several benches and chairs. The walls were plastered, the ceiling beamed, and the floor covered with sand. Geese, chickens, ducks, dogs, cats, and flies all had as free access to the interior as did the family, and all made frequent use of their privilege.

We did not tarry long in the kitchen, for, despite its importance to the family, my Czech friends had no intention of entertaining their first American visitor in this room. I was ushered into the other half of the house, a combination parlor, dining-room, and bedroom, reserved in the first two uses for rare and special occasions, but constantly necessary in the third because of the size of the family.

Two enormous feather beds were in opposite corners. An elaborate stove, near one wall, was for ornament as well as use, its tiles of old rose, moss green, and white being arranged in attractive designs. A whatnot in another corner, a small table, several chairs, a couple of benches, and a coarse rug completed the furnishings.

On the walls were several pictures of scenes from the Bible, a small Czechoslovak flag, an American flag of about the same size, and post-card pictures of Presidents Masaryk and Wilson. The beds were covered with beautifully embroidered handmade spreads; the table with a red cotton cloth.

DINNER BRINGS NEW EXPERIENCES

By the unmistakable sign language, I was asked to be seated at the head of the table—an invitation accepted with alacrity, for an early breakfast had left me ready for dinner.

Only my two original escorts and their mother had entered the inner sanctum, and the last-named lingered but a moment.

As the three of us sat at the table, gazing and smiling and gesticulating at one another, the mother returned, bearing a large covered bowl. This she set before me, while Boloslav removed the cover and Vaclav motioned me to do my duty toward the contents, an enormous leg of goose boiled in spiced milk. It looked and smelled most tempting, but I restrained myself, waiting for plates to be brought to my two companions. Finally I was made to understand that they were only official observers, socially speaking, and that the whole goose leg was for me alone.

I set to and enjoyed what I thought was my dinner, but I was mistaken. It was merely a guest's hors d'œuvre. When this course had been finished, all of the feminine members of the family came trooping in, laden with dishes. I have a sneaking notion that some of them were peeking, for they timed their arrival perfectly.

The table fairly groaned with food, and now the two brothers joined me in doing justice to it. A large roast goose, minus only the leg already mentioned, was the *pièce de résistance*, and there was a formidable array of supporting viands. One dish was piled high with *knedlíky*, or heavy dumplings, which were probably well made according to native standards, for my hosts stowed them away with evident relish; but one bite was enough to enable me to classify them as among the most undesirable things found in the new Republic.

Boiled beef and potatoes, cabbage cooked with anise seed, beets, and hard-boiled eggs completed the menu. At first there was nothing to drink on the table, but after all the food was in place a youngster staggered in embracing a large pitcher of Pilsener beer.

Now, Pilsener beer is widely considered one of the best varieties in the world, but, despite its reputation, I don't like it, and it was with no great joy that I beheld its advent as a part of the meal. The most embarrassing feature was that it had been obtained as a special treat for me.

For courtesy's sake, it had to be drunk. It was strong and bitter, but by heroic efforts I managed to empty my glass, and in so doing made a dreadful mistake, for no sooner was it drained and set upon the table than Brother Vaclav filled it again to the brim. This time the mandates of politeness were disregarded, despite repeated urgings.

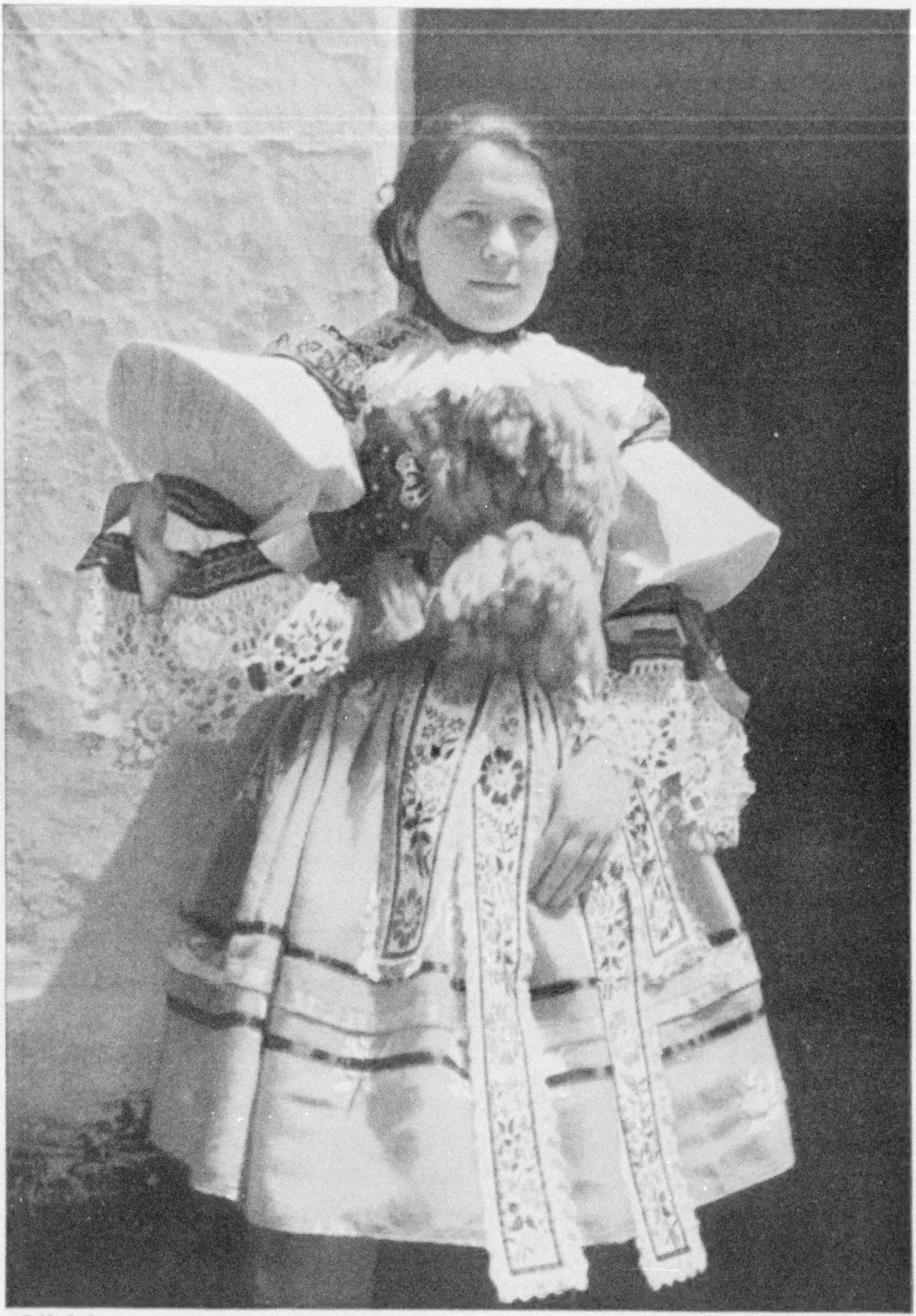
This was the propitious beginning of my delightful visit among Czech peasants.

A FAREWELL THAT RESEMBLED A WEDDING PROCESSION

When I said good-by to Rakovnik, each member of the family presented me with a little gift—one a tiny vase, another a paper weight, a third a statuette, still another a bookmark, while one of the faithfully attending brothers gave me a post-card picture of himself, and the other a small Czech flag. The mother was the last to make her presentation—one bag of delicious cakes and another of very sour, hard, little apples.

All of the family except the mother accompanied me to the station. My original escorts fell in at either side and the others paired off behind us. As we passed through the garden gate, two of the younger children were waiting to laden me with huge bouquets. So, with my bags of provender under one arm, the enormous nosegays in the other, and pockets bulging with strangely assorted gifts, I set out for the train.

Several of the neighbors swelled the ranks of our procession, and the children and dogs running along in front and beside us lent to the journey stationward



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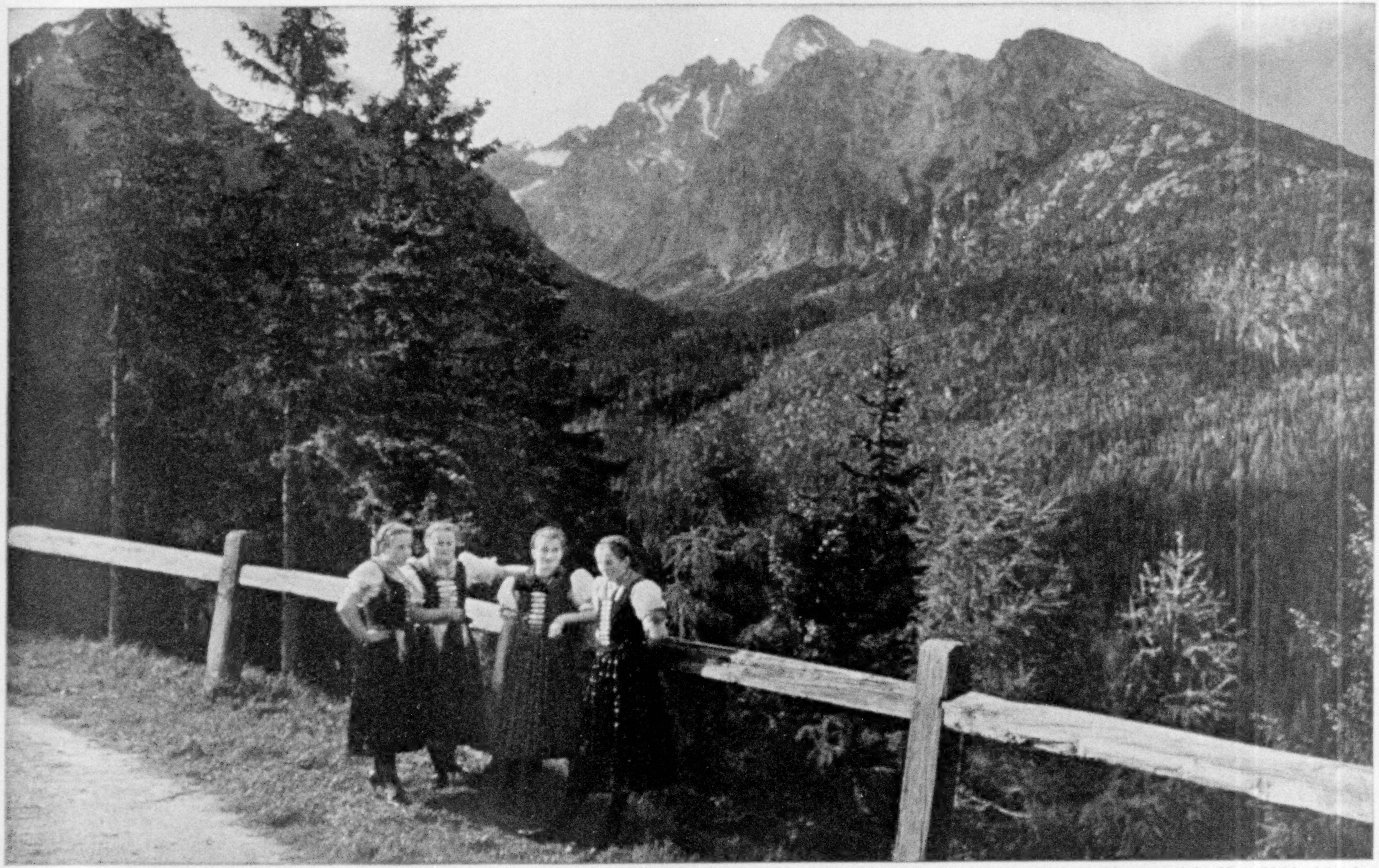
Natural Color Photograph by Hans Hildenbrand

WHERE BEAUTY IS ADORNMENT

The most brilliant costumes in all Slovakia may be seen in the village of Vlcnov. Over a snowy white linen shirtwaist with wide puff sleeves trimmed with deep crochet lace, is worn a vest embroidered in many colors and covered with thick red tassels, which are also worn in some communities by the men (see Color Plates VII and IX). The gleaming red skirt is trimmed with richly embroidered silk ribbons.



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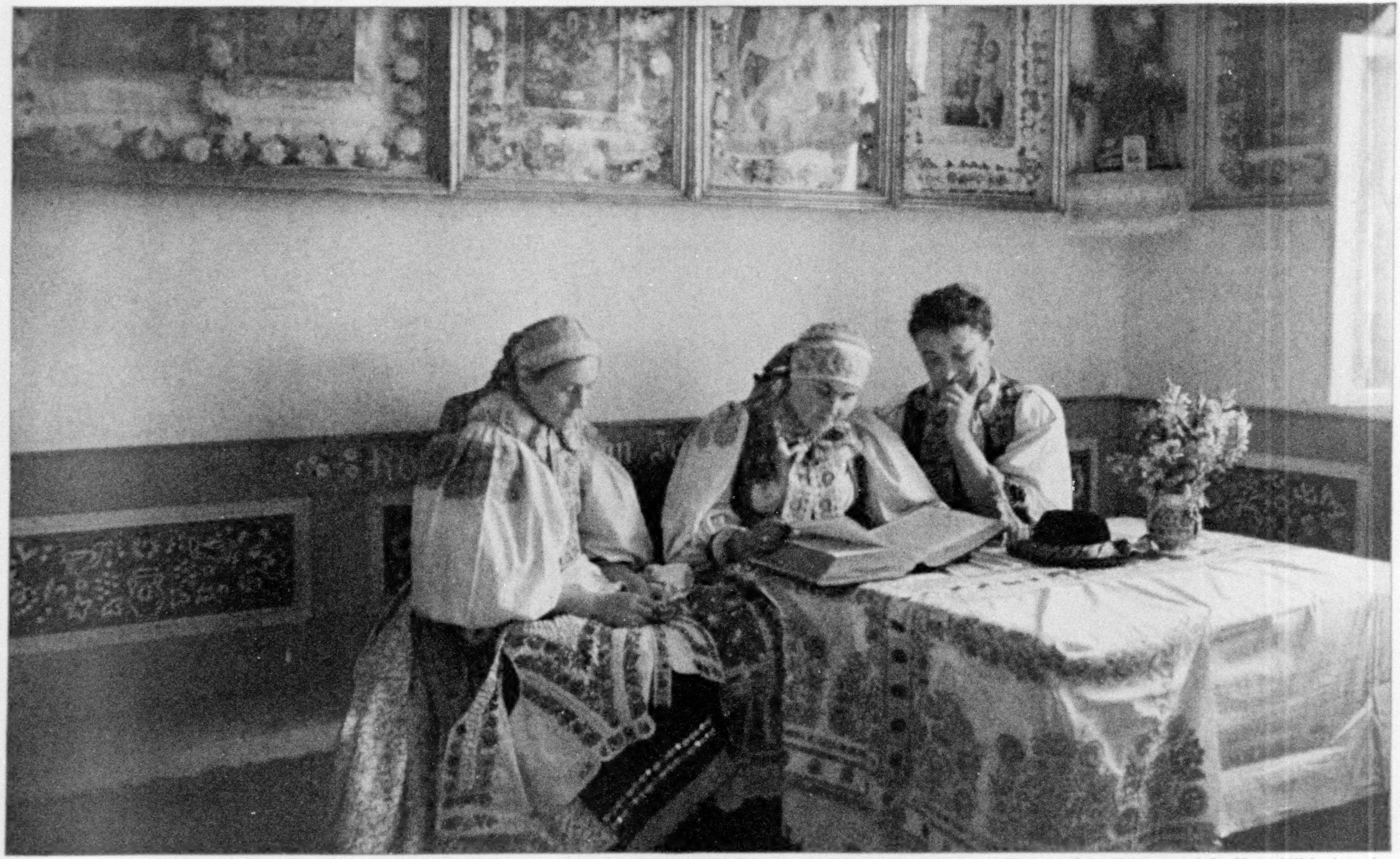
THE SNOW-INSCRIBED PEAKS OF THE HIGH TATRA PROVIDE A MAJESTIC BACKGROUND FOR THE GAY ATTIRE OF SLOVAKIAN PEASANTS



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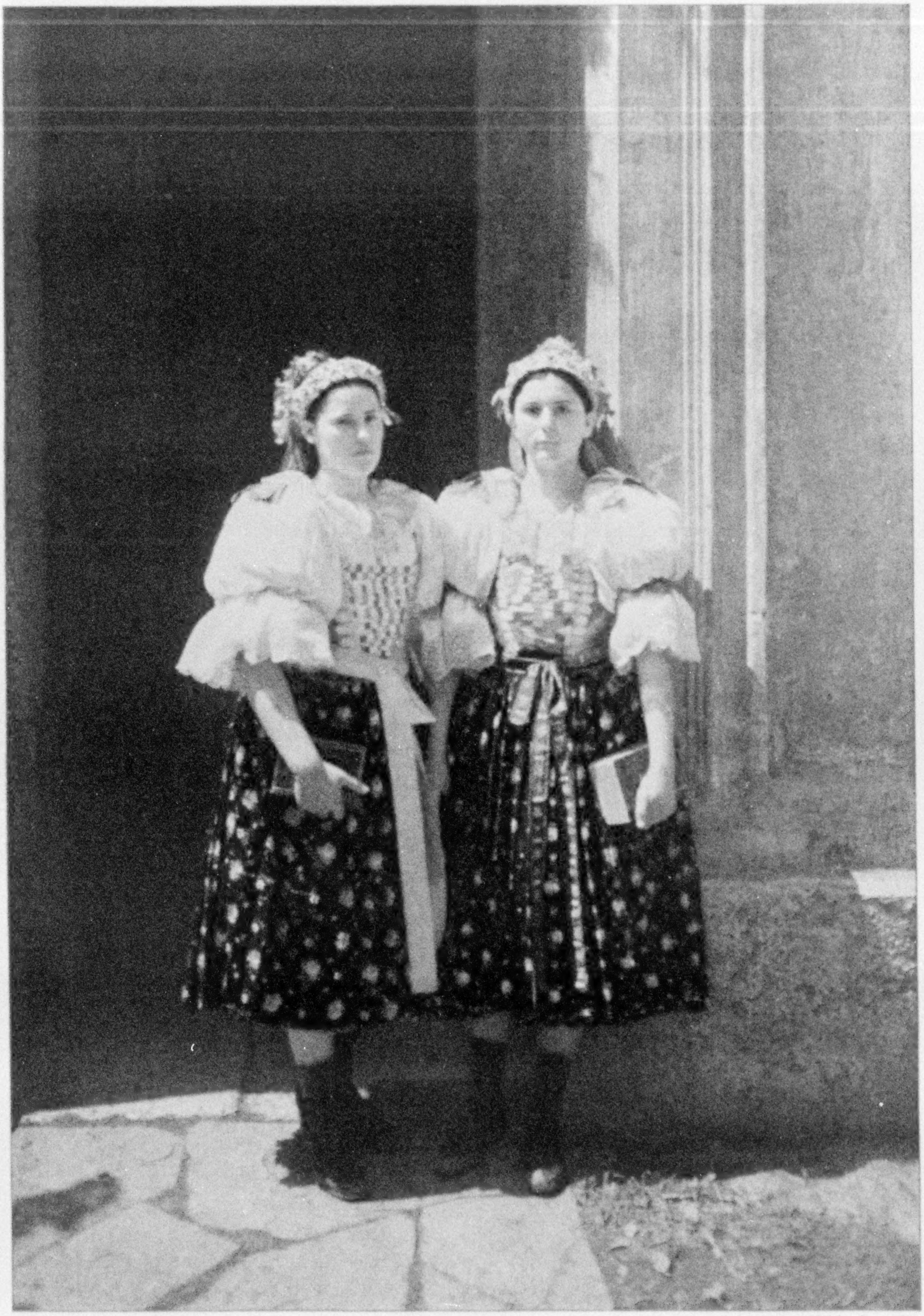
THE FAMILY BIBLE ABETS A ROMANCE

In color combinations and in beauty of designs these costumes are among the most attractive of Slovakia. The gallery of elaborately decorated pictures indicates the prosperity as well as the religious fervor of the household.



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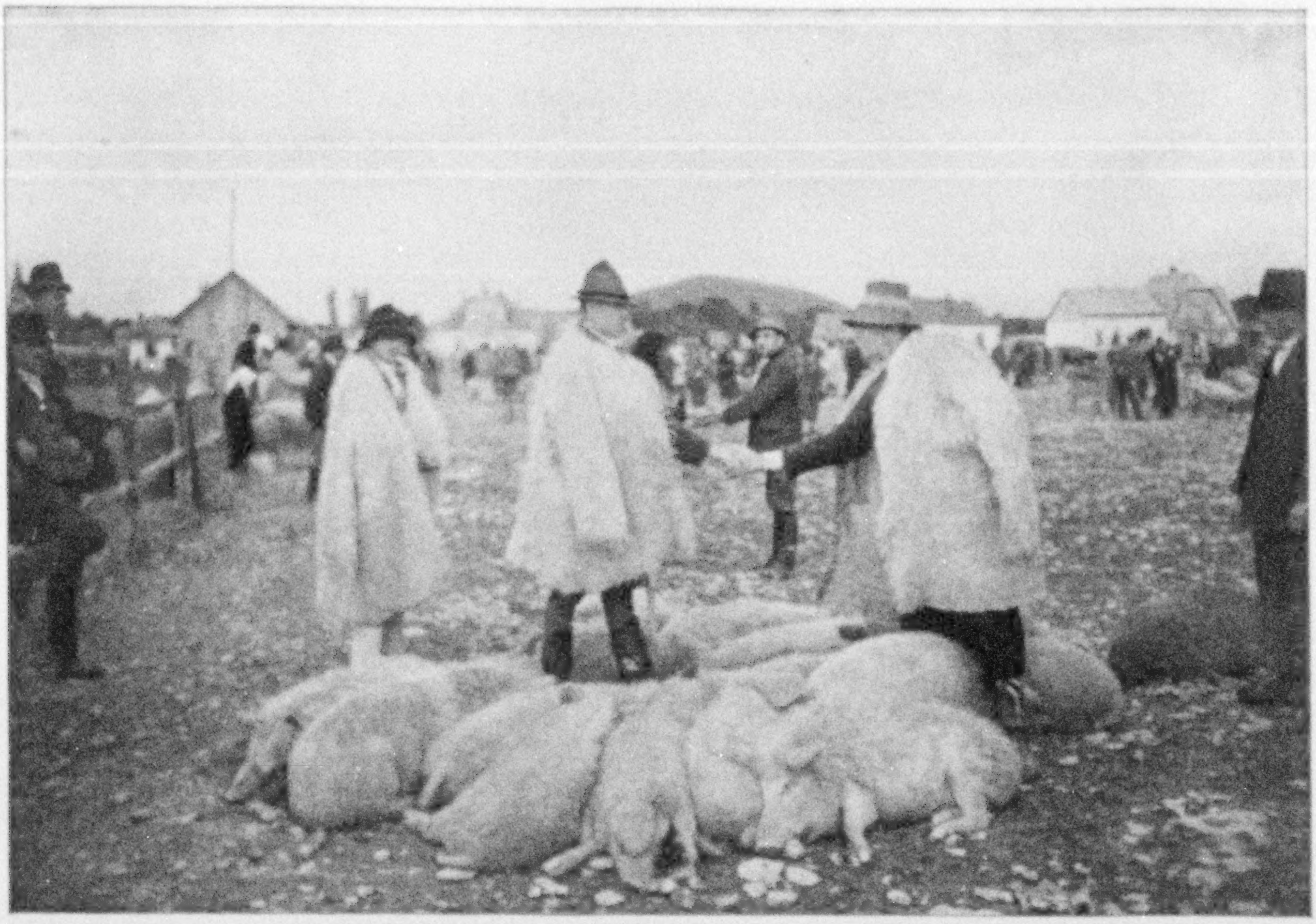
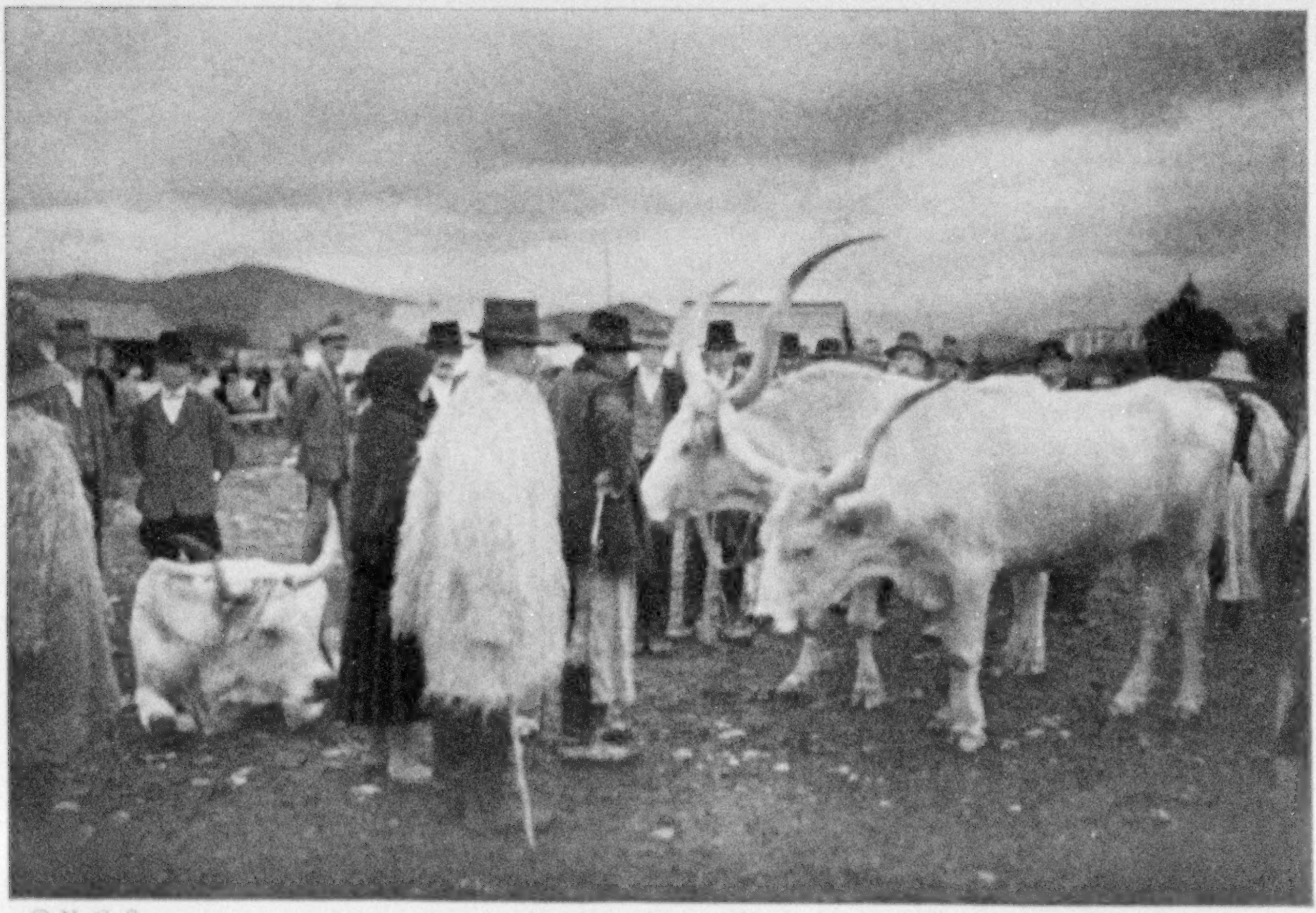
THE HOUR FOR A RELIGIOUS FESTIVAL IS AT HAND

Over a puffed blouse a gold embroidered tunic is worn, and the bodice is embroidered in bright colors. The skirt is flowered and the belt is of silk ribbon, the ends of which fall on the skirt. The headdress consists of a bonnet-shaped wreath of many colored beads.



BARGAINING FOR HOGS WITH WOOLLY HAIR

Hog breeding is an important industry in Ruthenia, the most easterly province of Czechoslovakia. The animals, which have curly hair very much like the wool of sheep, are driven to the weekly market in herds.



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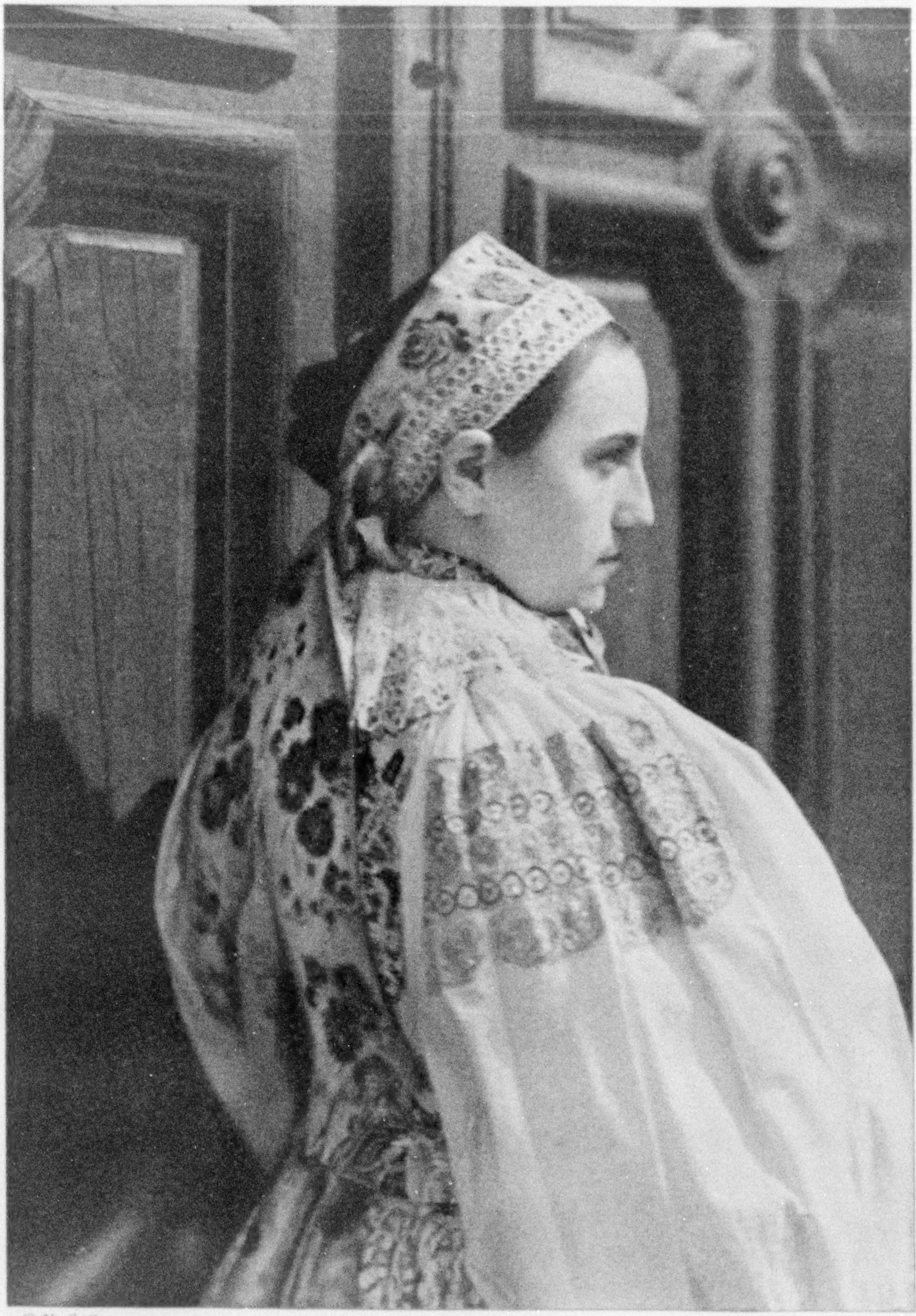
RUTHENIAN OXEN WITH GIGANTIC HORNS

In Užhorod, chief town of Ruthenia (see above), there is a weekly market day when all the farmers from the surrounding country bring in their cattle. These whitish-gray oxen are of Hungarian stock—large-framed, lean and hardy, with a spread of horns sometimes measuring five feet.



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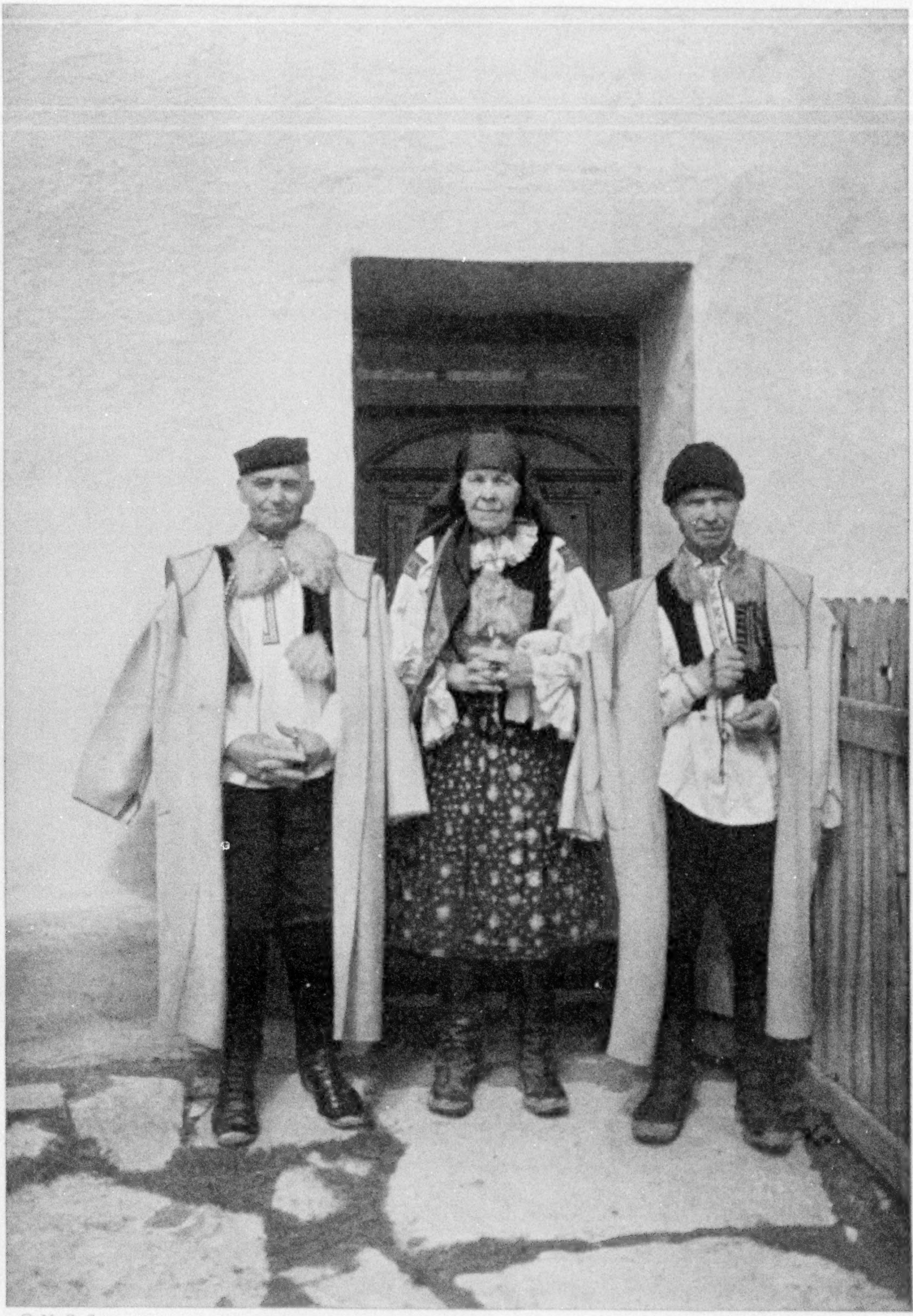
HER HEADDRESS OF EMBROIDERED SILK RIBBON IS HER OWN DESIGN

Many a Slavic head shawl lends charm to the broadest of peasant faces. In some Old World countries peasant costumes of brilliant color and bizarre design are now to be found only in museums, but happily, in the Moravian and Slovakian districts of Czechoslovakia national pride is preserving examples such as this.



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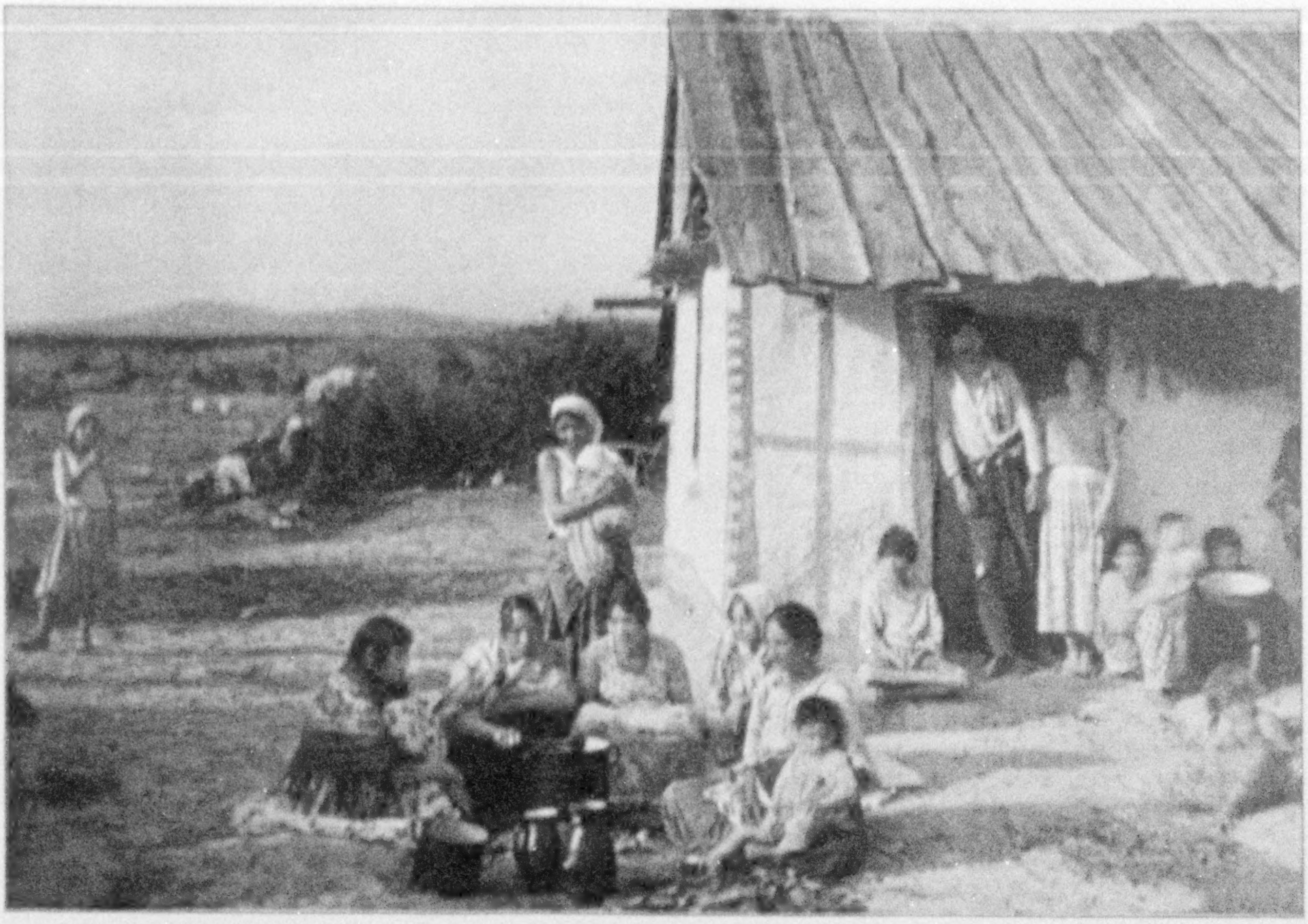
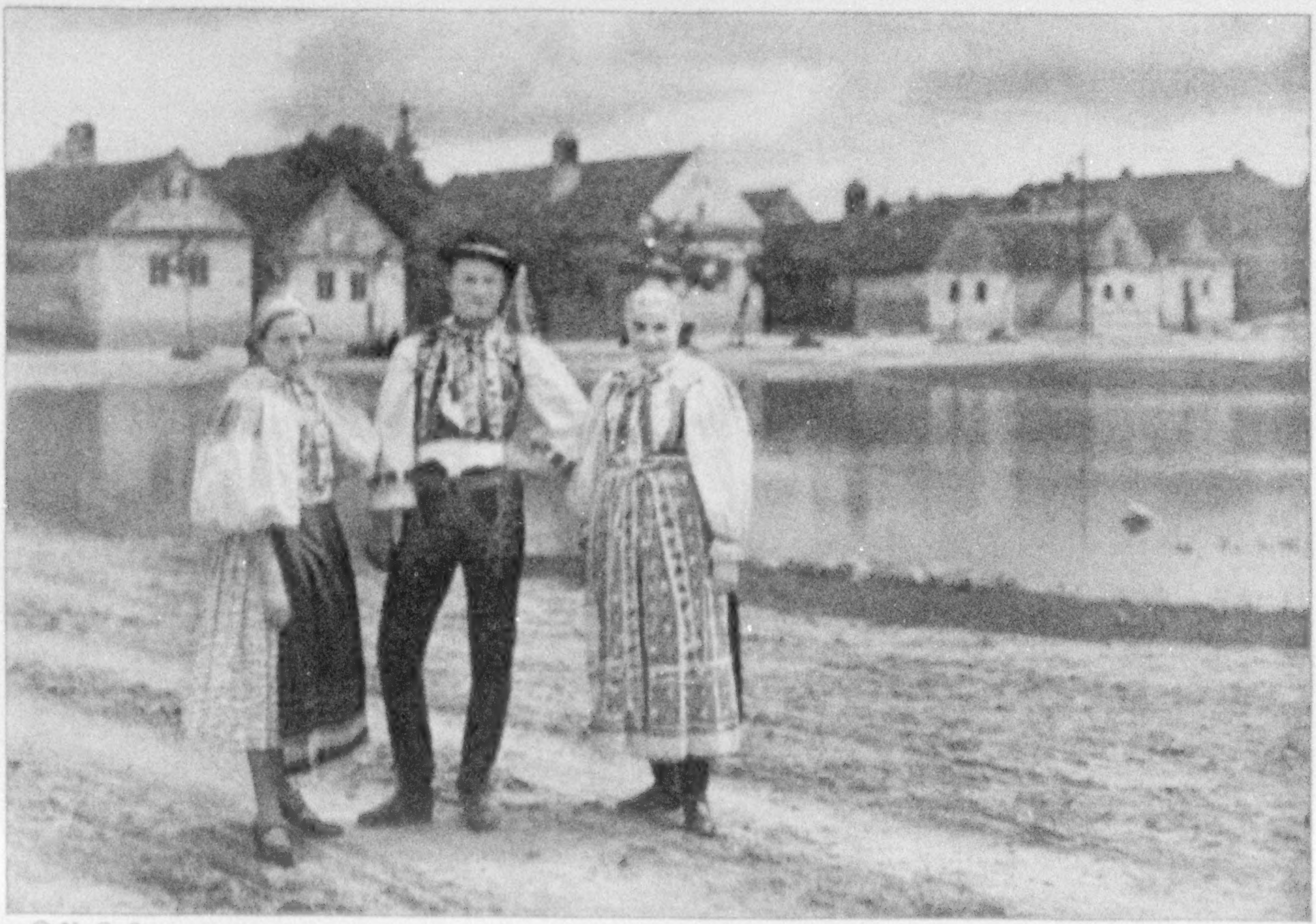
OFF FOR CHURCH FOR THE THIRD TIME ON SUNDAY

In parts of Moravia the peasant population is intensely religious, a fact of which Americans are reminded when they recall the encouragement which John and Charles Wesley, founders of Methodism, received from the Moravian Brotherhood, immigrants to Georgia early in the eighteenth century.



"POTLUCK" WITH RUTHENIAN GYPSIES

Their house consists of one small room, in which the entire family resides. Gypsy settlements of this kind may be found in occasional villages throughout Czechoslovakia.



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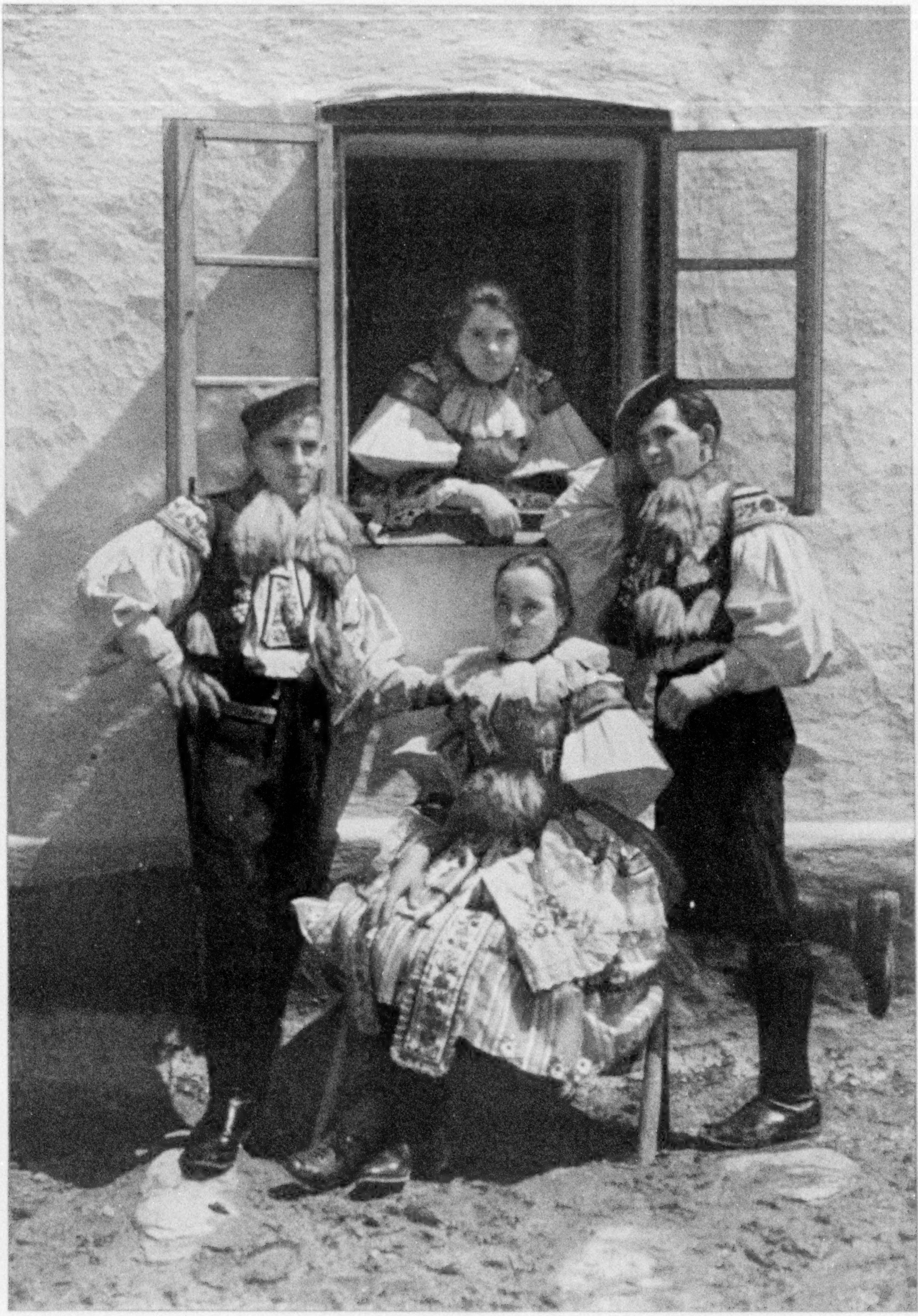
GAY PLUMAGE IS NOT THE PREROGATIVE SOLELY OF THE FAIRER SEX

A special feature of the man's costume is the elaborate embroidery on his tight-fitting trousers. Observe also the color note in the hat band and streamer. The girl at the left has adopted modern pumps, but her companion still wears the Slovakian soft leather boot. (See also Plate XVI).



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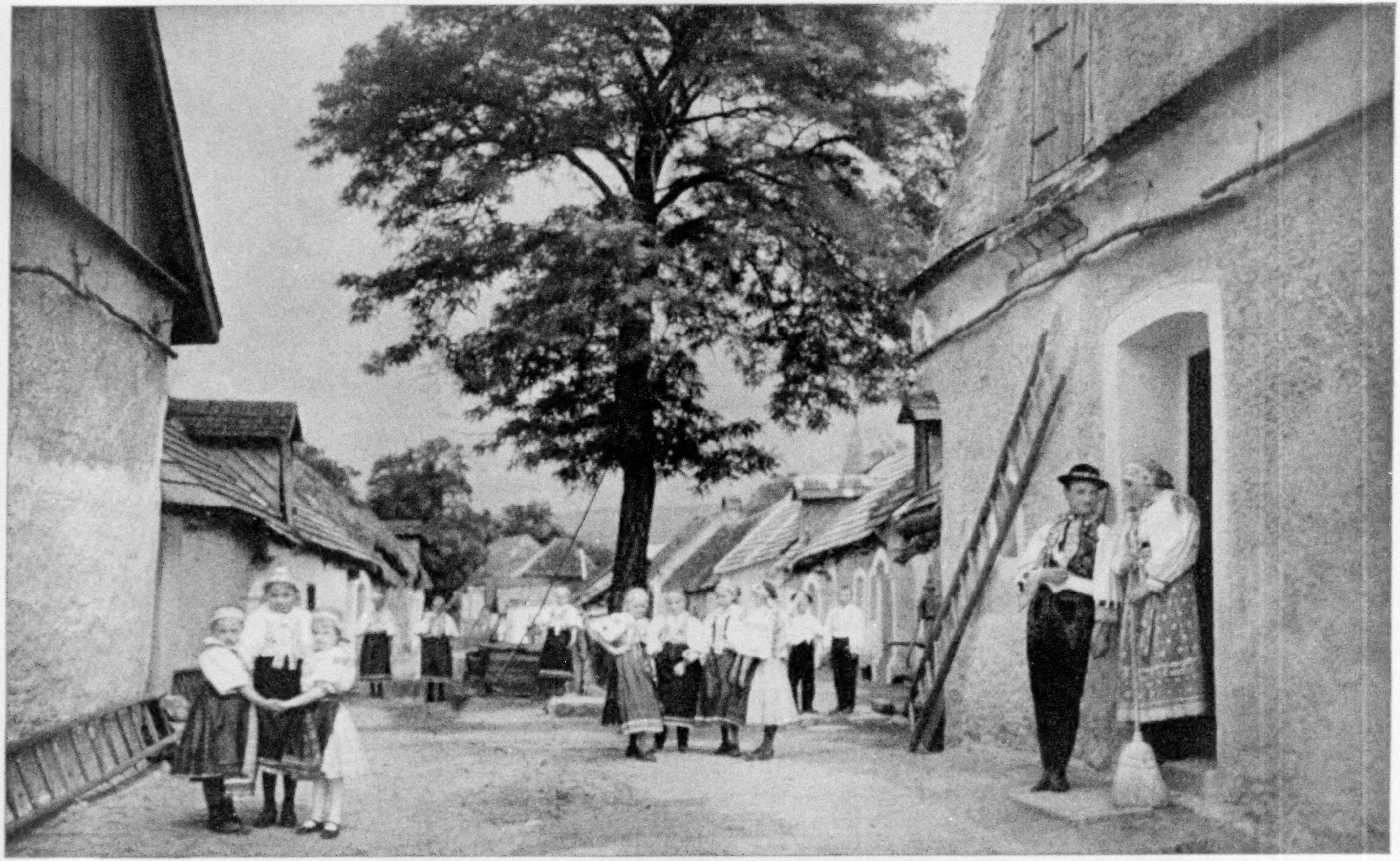
WHERE LAUNDERING BECOMES A FINE ART

The spotless whiteness of shirtwaists with bouffant sleeves worn by these Moravian couples represents toil and care no less than do the gay embroideries and the scarlet pompons. Note the handmade lace cuffs of the women.



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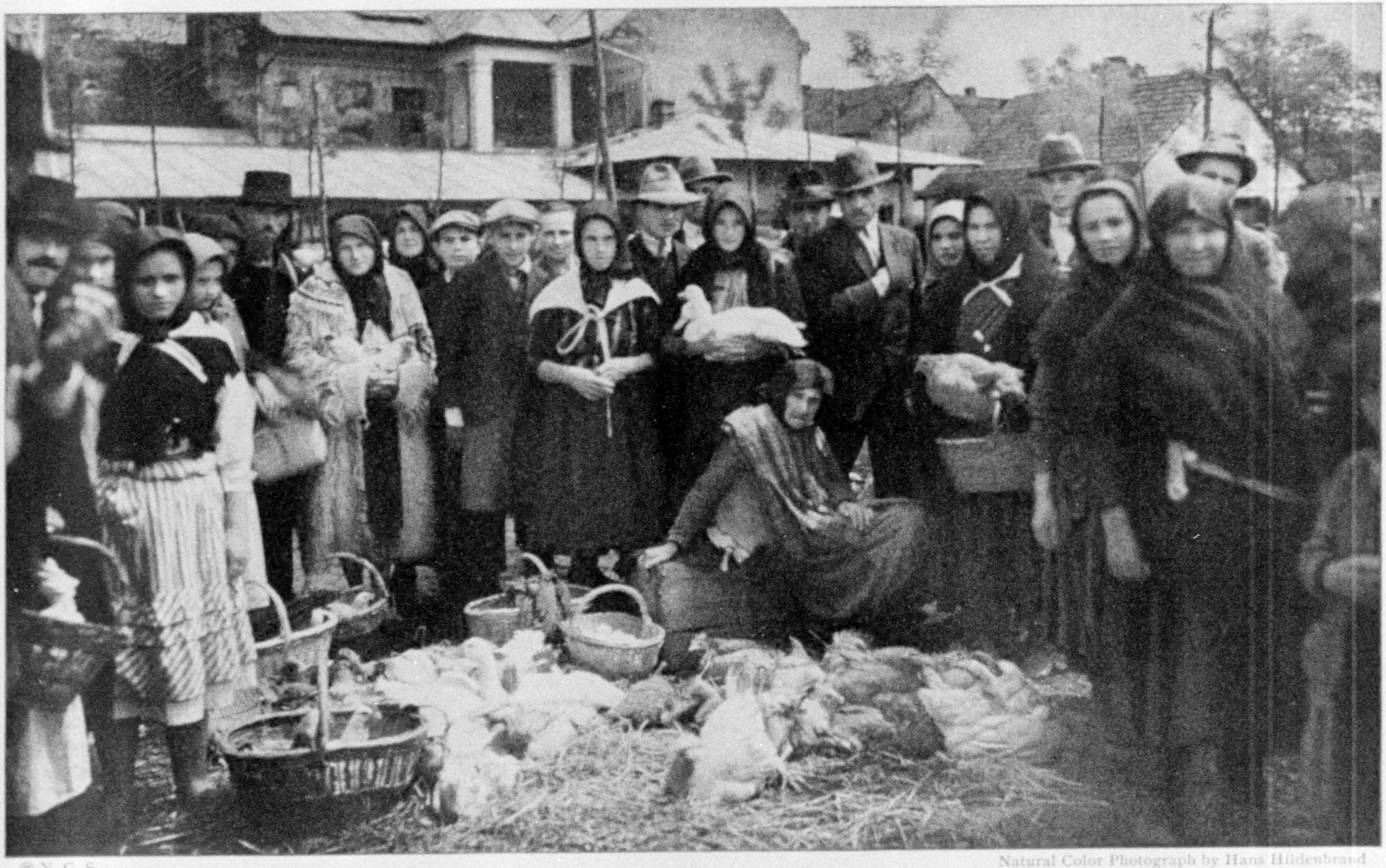
THE SUNDAY DRESS PARADE IN A VILLAGE OF SLOVAKIA



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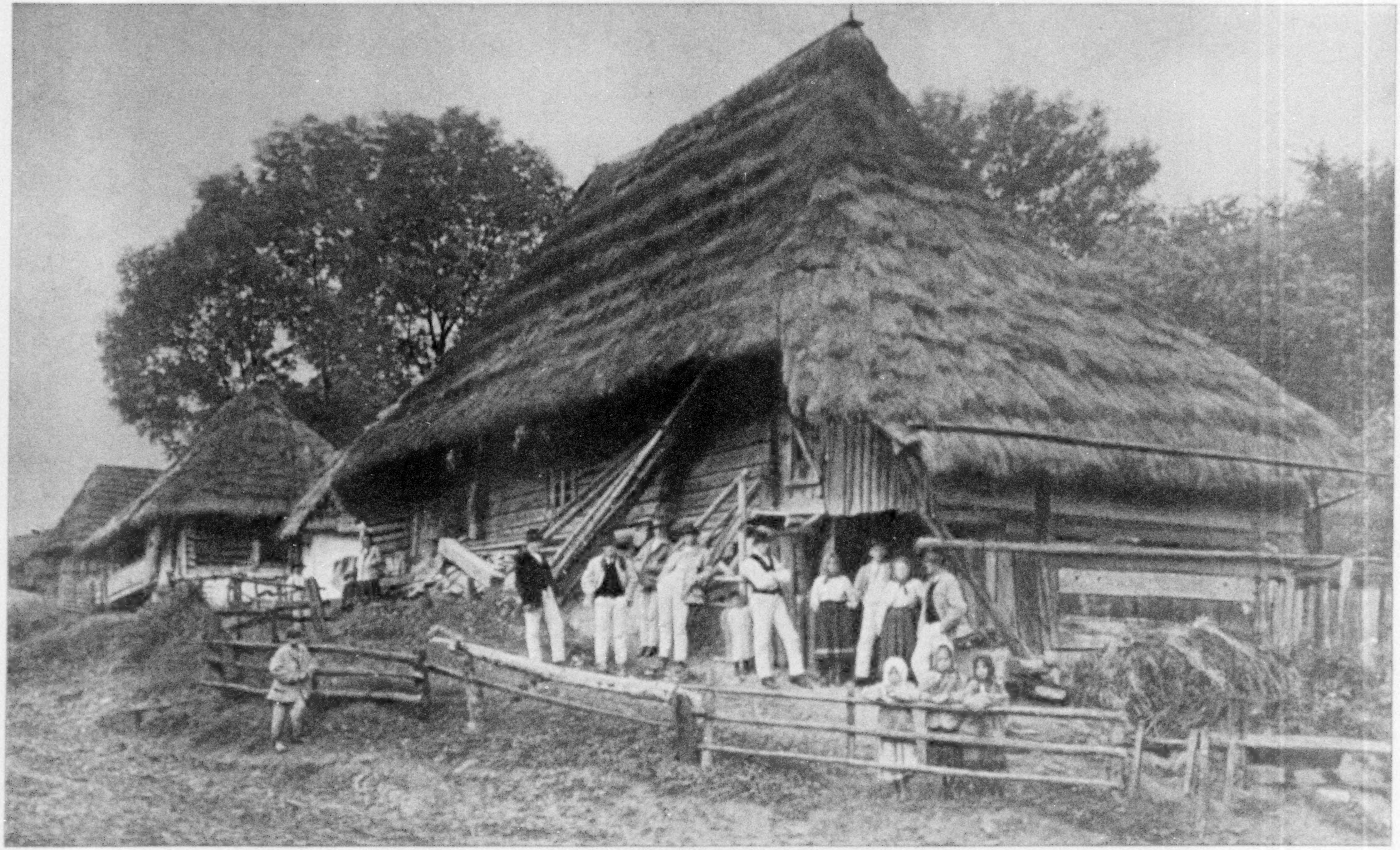
THE MONDAY POULTRY MARKET AT MUKAČEVO, CENTRAL RUTHENIA

That portion of Czechoslovakia which comprises the thin eastern edge of the "wedge-shaped" republic is familiarly known as Ruthenia but officially as Podkarpatská Rus. It is the most primitive section of the country, a fact which enhances rather than detracts from its picturesqueness. (See also Color Plates V, VIII, XII and XV).



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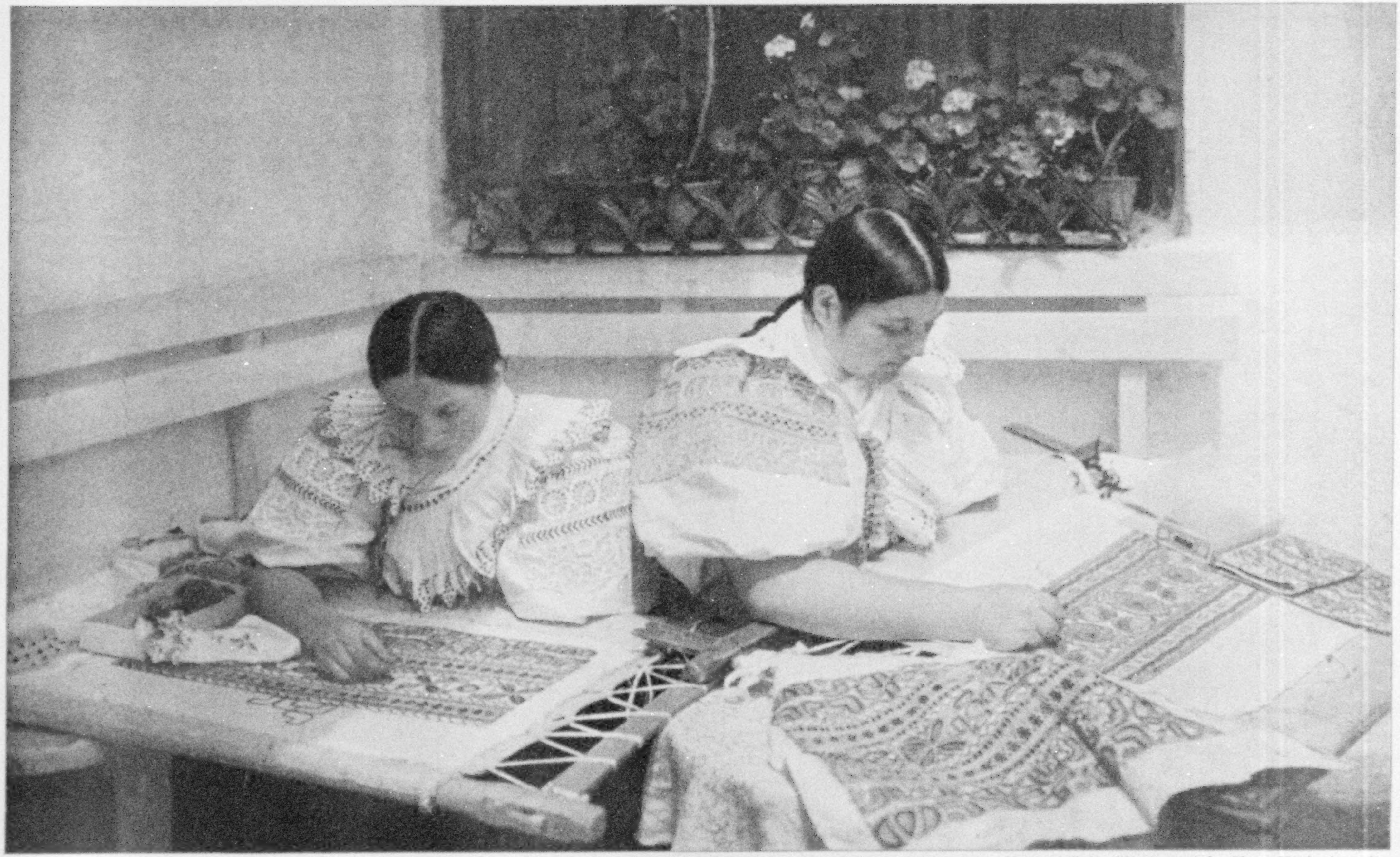
SLOPING ROOFS OF THATCH DISTINGUISH THE PEASANT HOMES IN VOLOVEC, RUTHENIA



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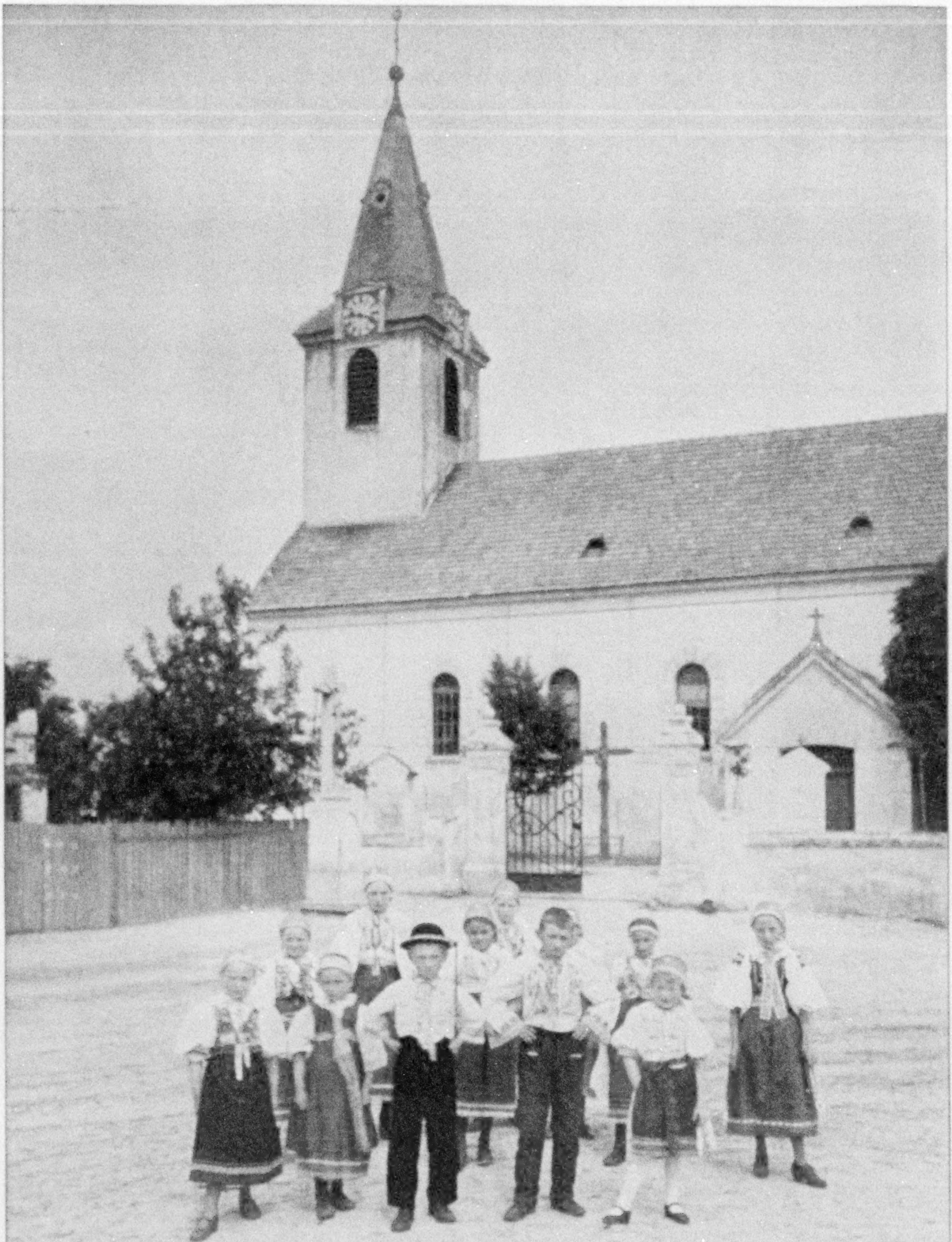
EACH EMBROIDERER DESIGNS HER OWN PATTERNS

Examples of the lovely needlework of these two young women of Detva, a village of Slovakia, are to be found in many cities of America. Czechoslovak embroideries are now in great demand throughout the world.



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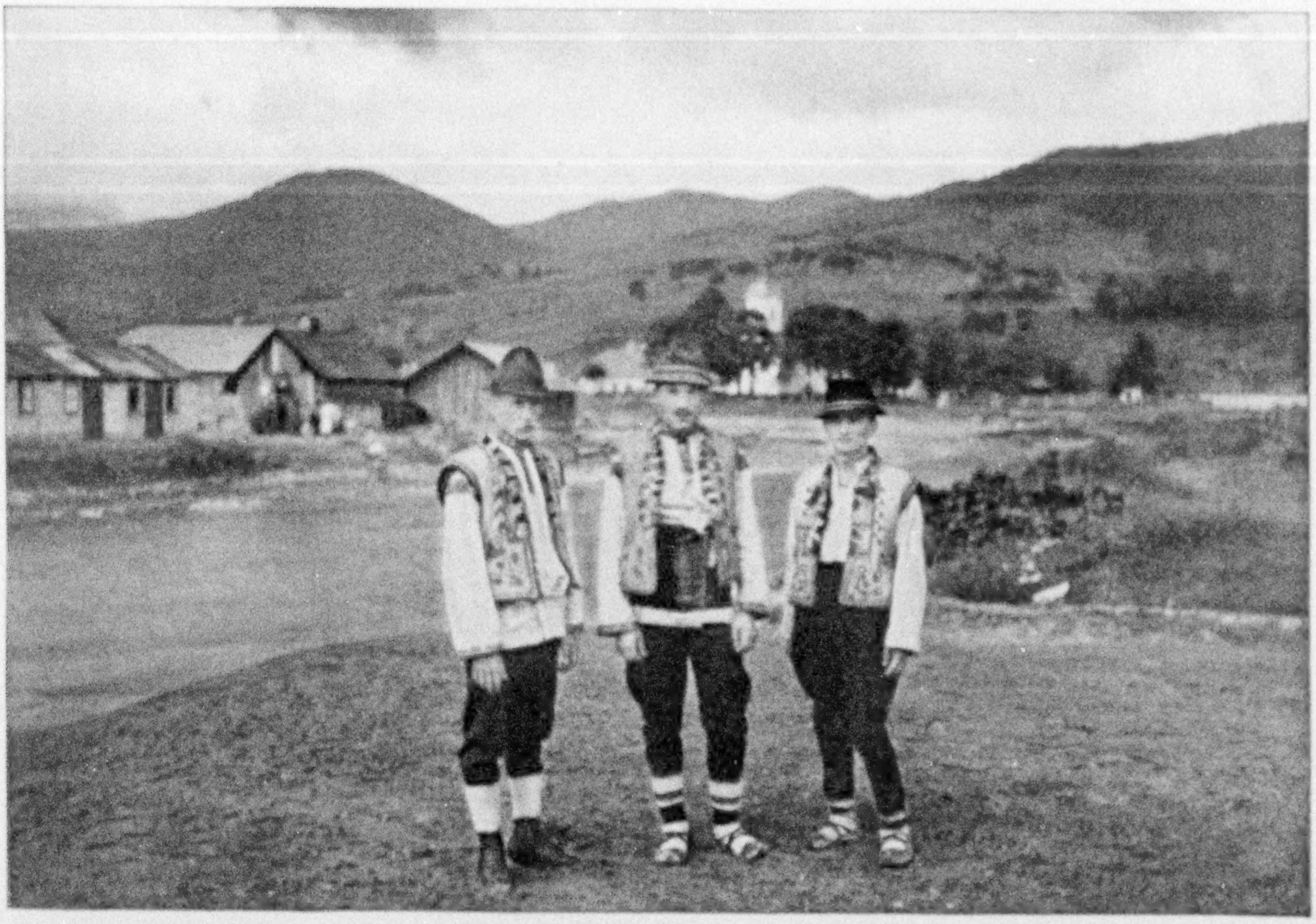
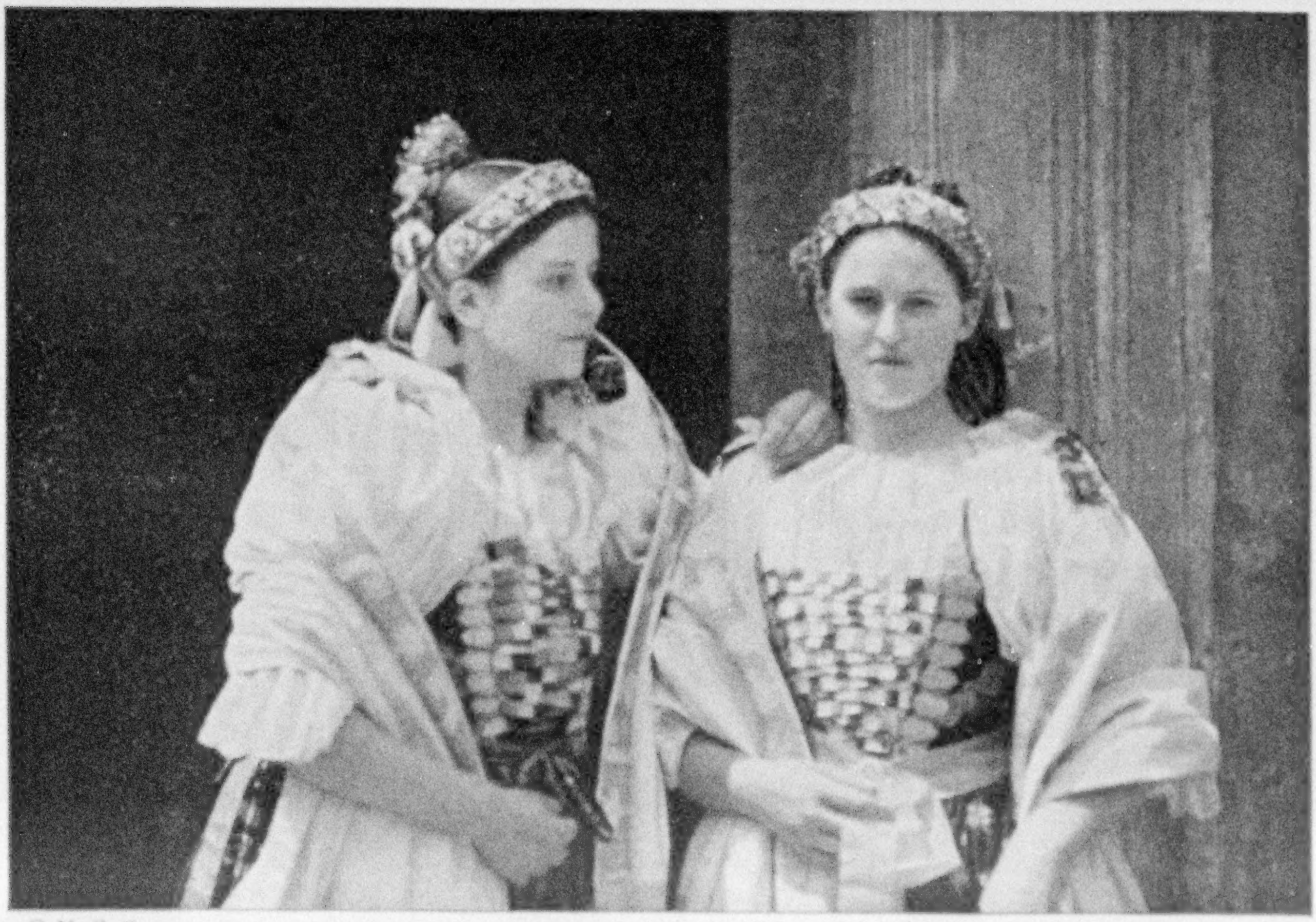
CITIZENS IN MINIATURE

The children of Slovakia are sedulous in attendance both upon secular school and Sunday school. Their festive attire indicates that these young folk have just come from church.



THE DANDIES OF JASINA EMBROIDER INSTEAD OF POLISHING THEIR BOOTS

One of the peculiarities of the male costume popular in this Ruthenian town near the Galician border is a brilliantly embroidered lambskin vest worn over a white shirt.



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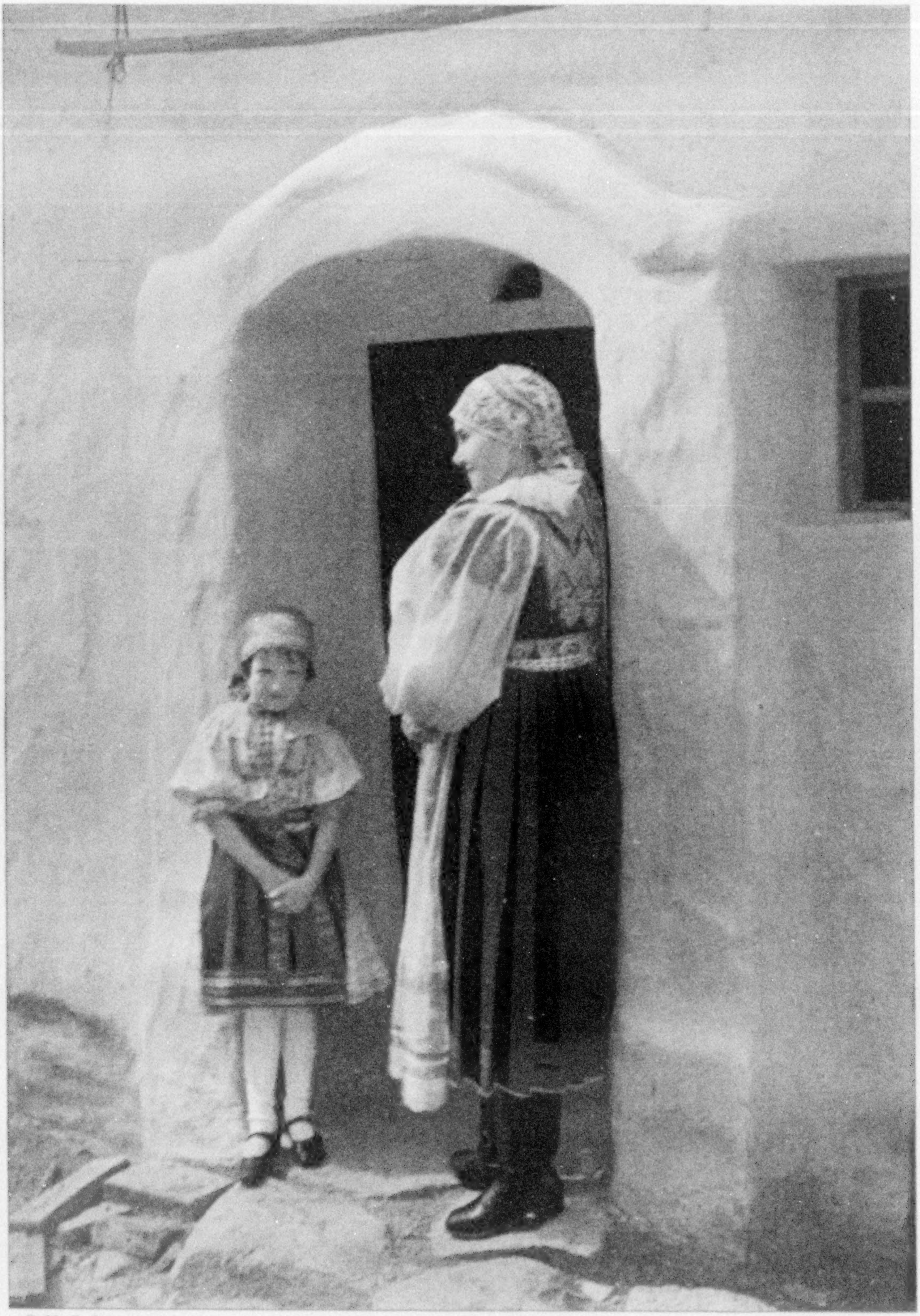
THEIR CORONETS ARE WREATHS OF BEAD FLOWERS

Red stockings and black shoes complete this costume with its multihued ribbons, peculiar to the village of Lomnica, northeast of Brno (Brunn).



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MOTHER AND MAID DRESS ALIKE IN SLOVAKIA

Youth and age are distinguished chiefly by size in peasant costumes, which are often handed down for generations. Note the elaborate embroidery on the back of the bodice worn by the mother.

something of the appearance of an old-time country wedding. All we lacked was a bride, and in her absence I was carrying the bouquet.

As I journeyed in the cool of the evening back toward the capital through hills purpling in the twilight, there was a warm and friendly feeling in my heart for the simple but kindly folk whose hospitality I had enjoyed.

Village life in Czechoslovakia differs in detail according to the section visited. Anywhere, it is interesting, but there is not so much of the colorful to be found among the Czech settlements as among the Slovak, where the contacts with the influences of modern civilization have been less frequent.

SLOVAKIA HAS RETAINED ITS PEASANT COSTUMES

Such contacts have been especially potent in their effect upon peasant costumes. Bohemian and Moravian villagers have laid aside much of the silk and lace and embroidery that formerly distinguished their "party" dress; but not so the Slovaks. In Slovakia Sundays and holidays are still remarkable for a brilliant ensemble of vivid hues in the dress of both men and women (see Color Plates X and XIV).

The Slovaks are primarily farmers, while the Czechs divide their energies between agriculture and industry. About 40 per cent of the population of the whole Republic is engaged in agriculture and every scrap of profitably arable land is under cultivation. The fertility of the soil is jealously guarded and a strict system of crop rotation is followed.

The countryside often presents a peculiar striped appearance, owing to the shape of the fields, which are sometimes nearly a quarter of a mile in length and only a few yards wide. Without knowing the reason for this, one might think that the early surveyors were of an eccentric turn of mind; but the blame is not theirs.

Originally there was nothing out of the ordinary about the size and shape of these fields; but, through generations of inheritance and division among various members of a family, they have gradually become narrower and narrower. Their unusual length is the result of a desire to have everyone share alike by giving to each a little bit of every kind of soil and location.

When a man has inherited several of these queer-shaped fields that are not contiguous, his farming problems are seriously multiplied and efforts are now being made, in connection with the Government's reallocation of the land, to consolidate these scattered strip holdings into more convenient parcels.

THE GOOSE DESERVES TO BE RECOGNIZED AS THE NATIONAL BIRD

The goose might qualify as the national bird of Czechoslovakia. Its rich meat is the staple delicacy of the festive board, whether in the peasant's hut, the village inn, or the more elaborate city hotel. Nor is its usefulness confined to the dining-room. Everywhere throughout the Republic one sleeps on its feathers, and, if the weather be cool, under them as well.

The name of this ubiquitous bird is linked with the history of Bohemia almost as closely as with that of Rome, although in a different way. Legend tells us that honking geese saved Rome by warning its defenders of the approach of their enemies; history reminds us that it was the eloquent voice and masterful personality of Jan Hus (which in English means John Goose) which sounded the call of an intellectual renaissance that lifted the people of Bohemia out of the lethargy of the Dark Ages.

The Czech language, like most Slavic tongues, presents real difficulties to a foreigner. When he encounters such combinations of letters as strc, skrz, and prst, he may well wonder if they were ever intended to be pronounced at all. I once ventured to suggest this to a native son, but his naïve reply was: "Czech is a very simple language; it's pronounced just as it's spelled!"

There's the rub—the spelling.

EATING ONE'S WAY OUT OF A CUSTOMS TANGLE

While most Czechoslovak officials are anxious to be helpful and everything is done to make pleasant the way of the traveler, in the early days of the new Republic very strict luxury taxes sometimes made the usual customs formalities considerable of an ordeal.

Once while en route from Vienna to Praha we were required to leave the train when the Czech frontier was reached and to take our belongings into the customhouse. Like the proverbial broom, the recently appointed officials were intent on sweeping clean and overlooking nothing that might be dutiable. Everything in my suitcases was removed, minutely inspected, waved in the afternoon breeze, and sorted into two piles.

All went well and the duties assessed seemed fair enough until the zealous inspector came upon two large cakes of sweet chocolate which I had purchased in Italy. I was informed that the luxury tax on them would make the duty just about equal to twice their purchase price.

The candy was not worth that much to me and I said so, adding that the Government might keep it if it wished. An argument ensued, through an interpreter, of course, and we were still exchanging relayed verbal barrages when the train whistle gave warning that only five minutes remained in which to settle the controversy.

Since the officer was unwilling to confiscate the disputed sweets, I was on the point of yielding to his demand for the excessive duty when, with true Czechoslovak helpfulness, our interpreter came to the rescue. He proposed that we eat the offending candy on the spot, and this simple solution of the problem was effected without further parley, thereby enabling me to proceed with my journey and some of my chocolate, while the inspector's official conscience remained unruffled.

Czechoslovakia is a land of great potentialities. Its location in the very heart of Central Europe is a most strategic one, comparatively easy of access in all directions, while there are within its borders rich mines, fine forests, fertile farm lands, and a population sufficiently numerous and energetic to make full use of these natural advantages.*

Its heritage from the past is a proud one, but it is both energy and resourcefulness in the present that have won it the sobriquet "Infant prodigy of the European family of nations." After the war clouds had dispersed, the new state lost no time in setting its house in order. Industrialist and agriculturist settled down to work side by side, and the Government took steps to safeguard the interests of the workingman and of the employer and capitalist.

A universal eight-hour day, accident and sickness insurance, a pension system, and insurance against unemployment for those willing to work are among the milestones already passed in the Republic's program of social legislation.

HALF A MILLION NEW LANDOWNERS CREATED

One of the most difficult problems confronting the men who guided the early destinies of the new state was presented in the large landed estates. After the Battle of the White Mountain, in 1620, where the Czech army was completely destroyed by the troops of Emperor Ferdinand II, practically all of the lands that had belonged to the defeated aristocracy were confiscated and given to German and Austrian nobles.

The land-reform laws under which the Republic has already expropriated more than a million acres of this land are not intended as punitive measures; the land taken is paid for. The Government's aim has been to dissolve great estates, so as to permit proprietorship by large numbers of citizens. How effectively this is being accomplished may be judged from the fact that nearly half a million new landowners have been created.

This widespread ownership of land is producing an economic order within the country that tends toward social stability, for the theories of communism do not, as a rule, appear very attractive to landowners, great or small.

Kindly, courteous, hospitable, energetic, and industrious, the Czechoslovaks are practical idealists whose long years of struggle and oppression have served not to embitter, but to inculcate tolerance and resourcefulness.

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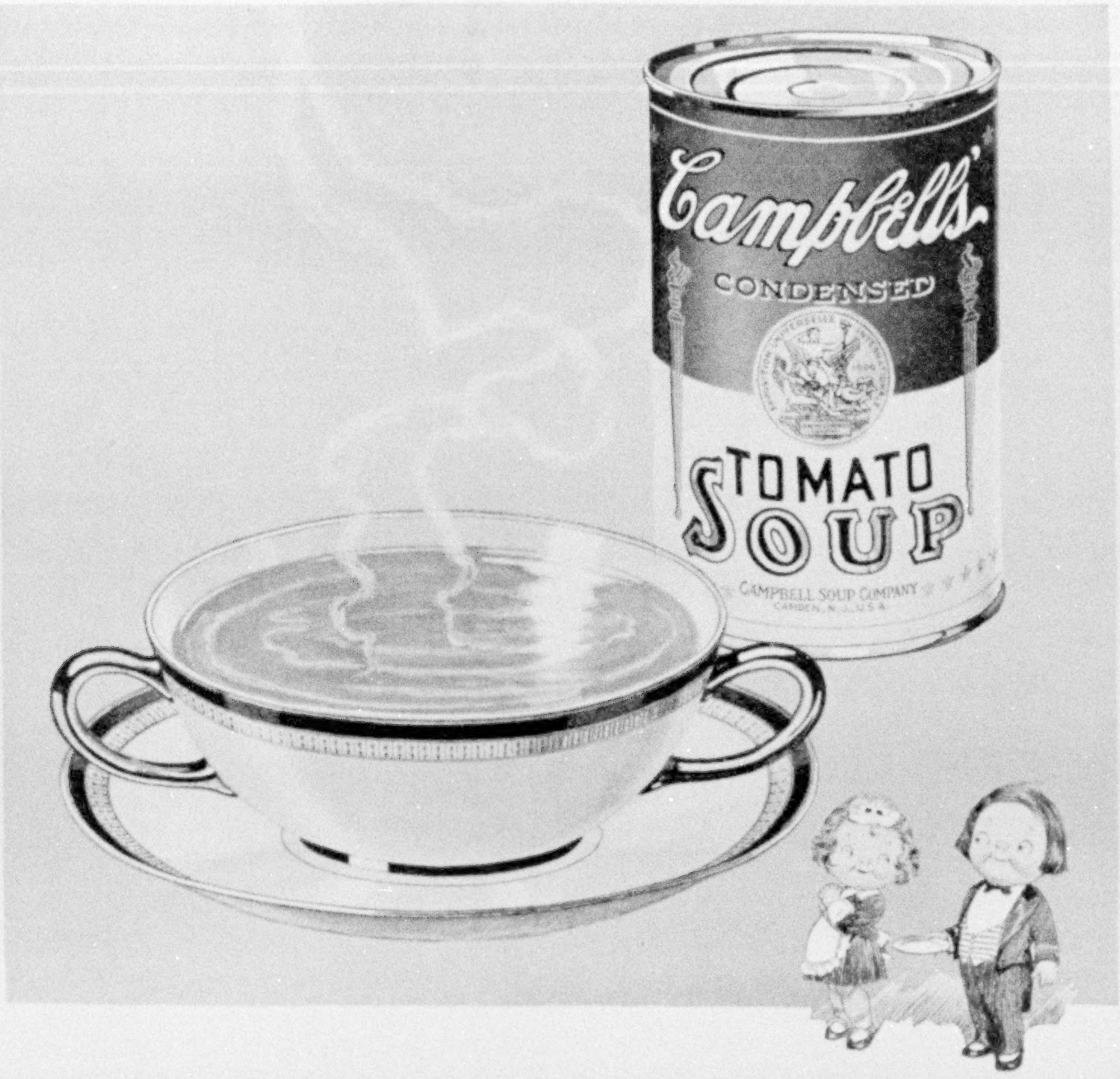
*See also "Czechoslovakia, Key-Land to Central Europe," by Maynard Owen Williams, in the NATIONAL GEOGRAPHIC MAGAZINE for February, 1921.

The soup everybody likes!


Campbell's
CONDENSED
TOMATO SOUP
CAMPBELL SOUP COMPANY
CAMDEN, N.J., U.S.A.

The refreshing, sparkling, appetizing flavor of the full-ripe tomato! Plucked at its richest maturity, it gives only its luscious "meat" and pure invigorating juices to Campbell's Tomato Soup. All the rest is discarded.

So in this famous soup is just the precious tomato goodness, made more tempting and nourishing by the blending of golden butter fresh from the country, and the most delicate and careful seasoning. 12 cents a can.

Campbell's Soups

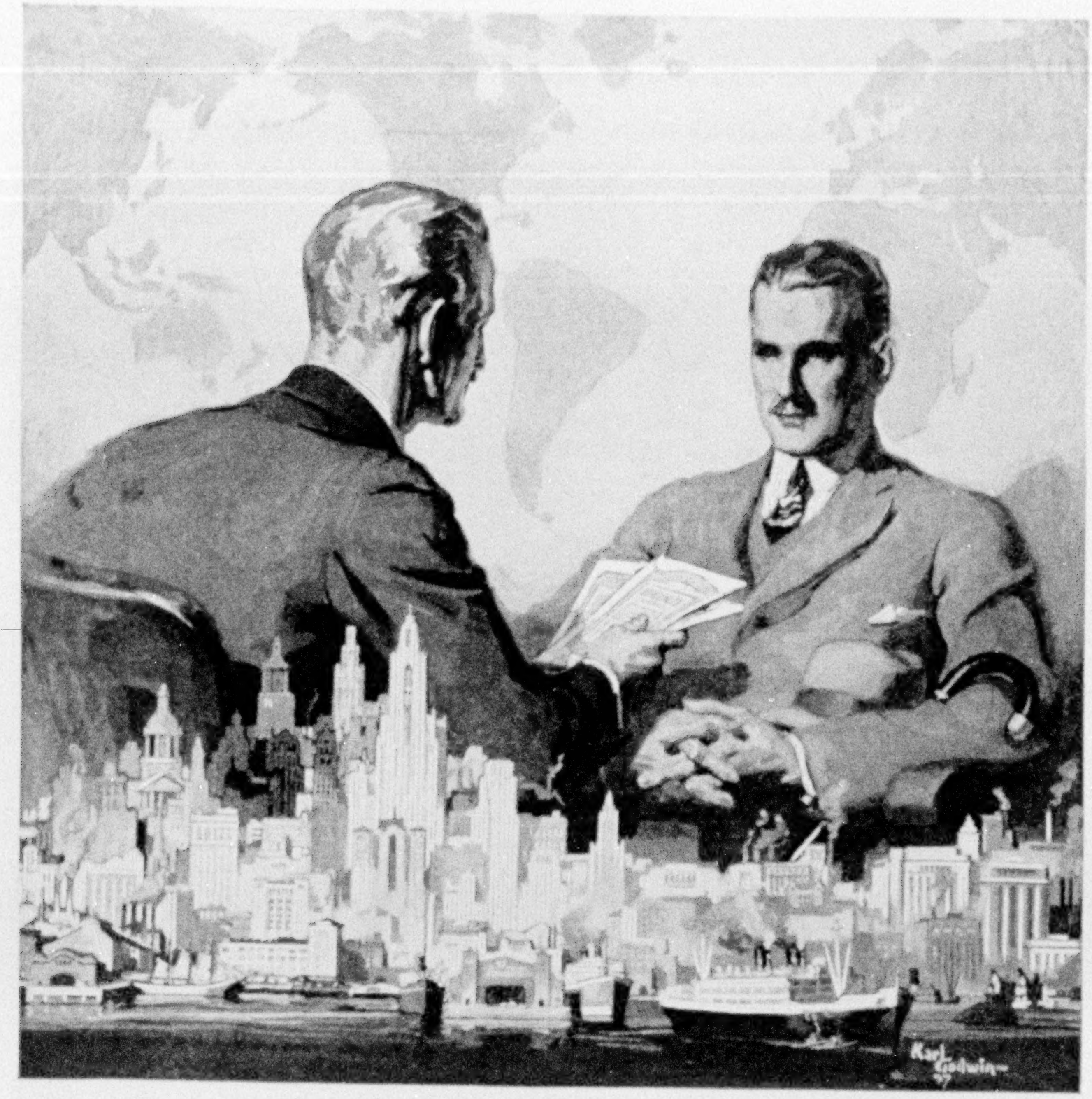
LOOK FOR THE RED-AND-WHITE LABEL

AN ADVERTISEMENT OF
THE AMERICAN TELEPHONE AND
TELEGRAPH COMPANY

THERE are twenty-five Bell Companies, but there is but one Bell System—and but one Bell aim and ideal:

A telephone service for this nation so far as humanly possible free from imperfections, errors and delays, and enabling anyone anywhere at any time to pick up a telephone and talk to anyone else anywhere else in this country, clearly, quickly and at a reasonable cost.

WALTER S. GIFFORD
President



—for helpful counsel

Solid knowledge of investment conditions throughout the world—close familiarity with bonds of all types—daily experience in meeting the needs of thousands of investors—all these are back of National City advice on bond investments. Representatives at any office listed below will gladly help you select good bonds for your available funds or advise you on your present investment holdings.

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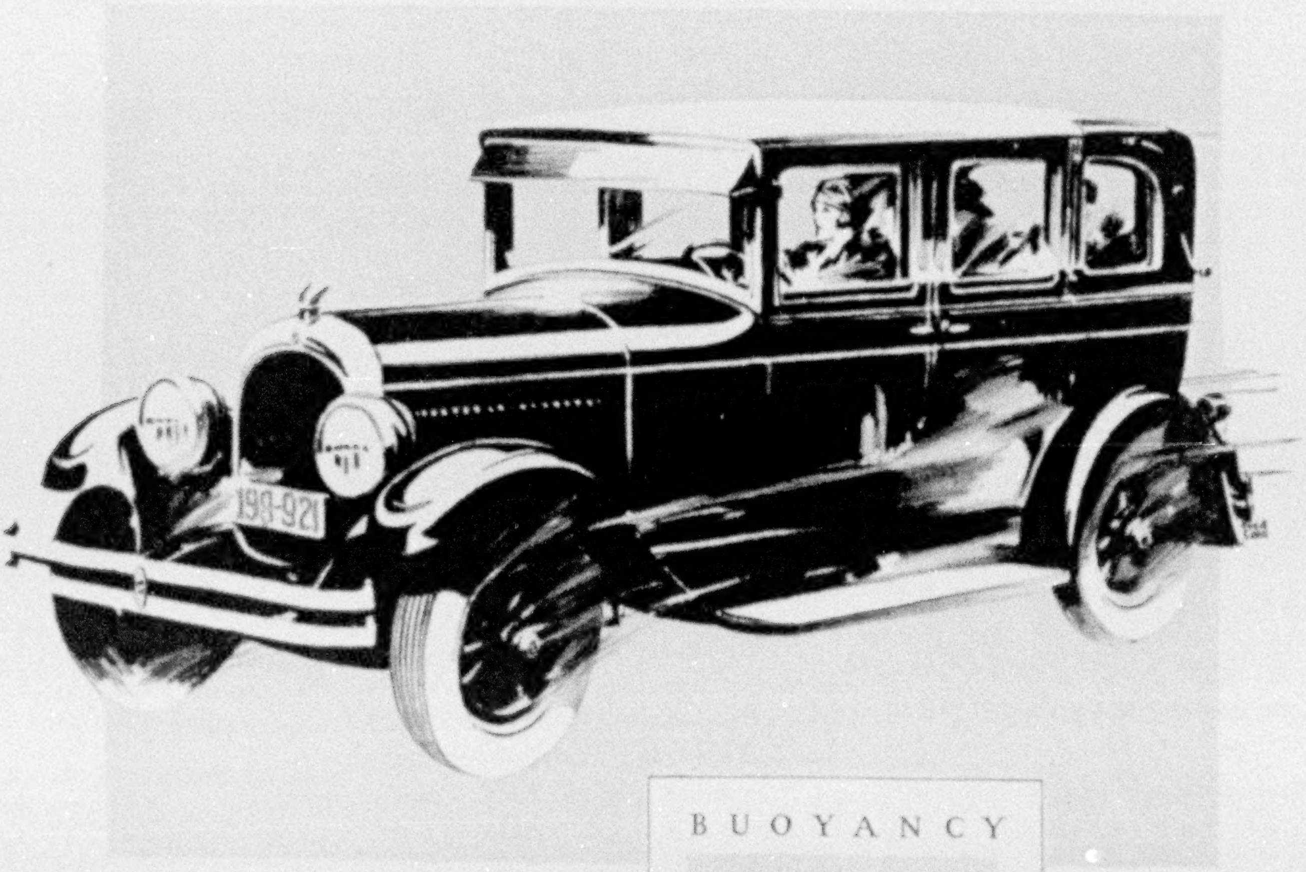
Let Kodak keep the story

Autographic Kodaks, $5 up

Eastman Kodak Company, Rochester, N. Y., *The Kodak City*

The car conception which started the sweep of Chrysler to 4th place

CHRYSLER 70



TODAY, more emphatically than ever the finer Chrysler "70" is pre-eminently the 70-mile-plus quality car of its class—vogue-established and value-established as unique, alone and literally above competition.

Not a day has ensued since the introduction of the first Chrysler "70" three years ago, that Walter P. Chrysler and his associates have not striven to strengthen its magnetic appeal, with the result that today it is as new and as advanced over the ordinary as it was at its introduction.

Standardized Quality reflects itself in every phase of "70" construction and "70" performance.

BUOYANCY

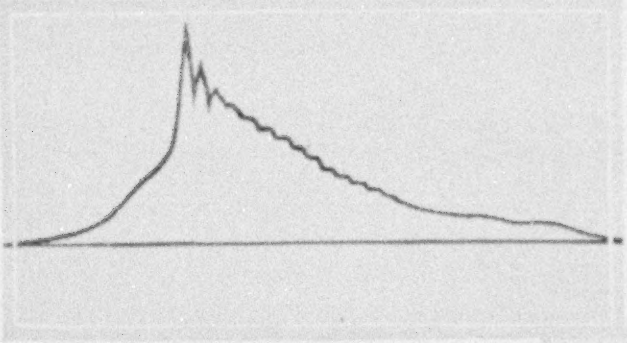
Finer, more exquisitely graceful bodies with military front and cadet visor—smaller wheels—greater luxury of comfort—greater riding ease—rich upholstery—greater perfection of appointment—more attractive color blendings far in advance of current harmonies.

* * *

Sport Phaeton $1495; Two-passenger Roadster (with rumble seat) $1495; Brougham $1525; Two-passenger Coupe (with rumble seat) $1545; Royal Sedan $1595; Two-passenger Convertible Cabriolet (with rumble seat) $1745; Crown Sedan $1795, f. o. b. Detroit, subject to current Federal excise tax. ▸ *Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan.* ▸ All Chrysler cars are protected against theft under the Fedco System of numbering.

CHRYSLER MODEL NUMBERS MEAN MILES PER HOUR

The first picture of that "knock"

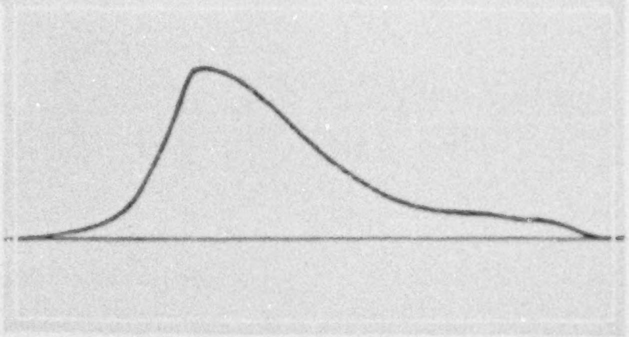


This is the "knock" in your motor

This shows photographically what occurs in the engine cylinder as carbon forms, when regular gasoline is used. The increased heat and pressure created by the carbon cause the gasoline to explode too quickly, with the result that there is an accumulation of high pressure heat waves which strike against the cylinder walls so violently as to produce an audible metallic sound. The bumps in the line are that "knock."

This is how "ETHYL" knocks it out

And this shows photographically what goes on in the same cylinder under the same conditions when regular gasoline is treated with "ETHYL" fluid. Note the absence of "knock-bumps"; the evenness of the pressure changes. The "ETHYL" fluid has neutralized the heating qualities of the carbon deposits and by maintaining the normal combustion rate of gasoline has turned the increased pressure due to carbon into increased power.



THESE PHOTOGRAPHS were made possible by a special instrument invented by General Motors Research Laboratories to find out what goes on in an automobile engine's cylinder when "knocking" occurs.

That invention led to the discovery that what you may call an "engine knock" or a "spark knock" is in reality a *fuel knock*. It is due to the tendency of a regular gasoline to explode too quickly as carbon forms and increases temperature and compression (pressure).

Having determined the character of "knocking," General Motors developed "ETHYL" fluid, a patented chemical compound which when added in very small quantities to regular gasoline forms Ethyl Gasoline, the most effective "anti-knock" fuel yet known.

Ethyl Gasoline transforms carbon deposits from a liability into an asset. It produces more power on hills and heavy roads. It gives a faster "pick-up," reduces gear-shifting, lessens vibration and engine wear and tear; and saves the trouble and expense of carbon removal.

Ethyl Gasoline has increased the motoring satisfaction of hundreds of thousands of car drivers. It is destined to play a still more important part in the automobile history of the future. TRY IT.

ETHYL GASOLINE CORPORATION
25 Broadway, New York

ETHYL GASOLINE is now generally available throughout the United States and Canada through the following oil companies, licensed to mix "ETHYL" fluid with gasoline. The "ETHYL" trademark on the pump is your protection.

Associated Oil Company · Atlantic Refining Co. · Beacon Oil Company · Continental Oil Company · Humble Oil & Refining Co. · Imperial Oil Limited (Canada) · Pennzoil Company · Refiners Oil Company · Spears & Riddle Co. · Spokane Oil & Refining Co. · Standard Oil Company (Indiana) · Standard Oil Company (Kentucky) · Standard Oil Company of Louisiana · Standard Oil Co. (Neb.) · Standard Oil Company (N. J.) · Sterling Oil Company · Union Oil Company of California · Walburn Petroleum Co. · Waverly Oil Works

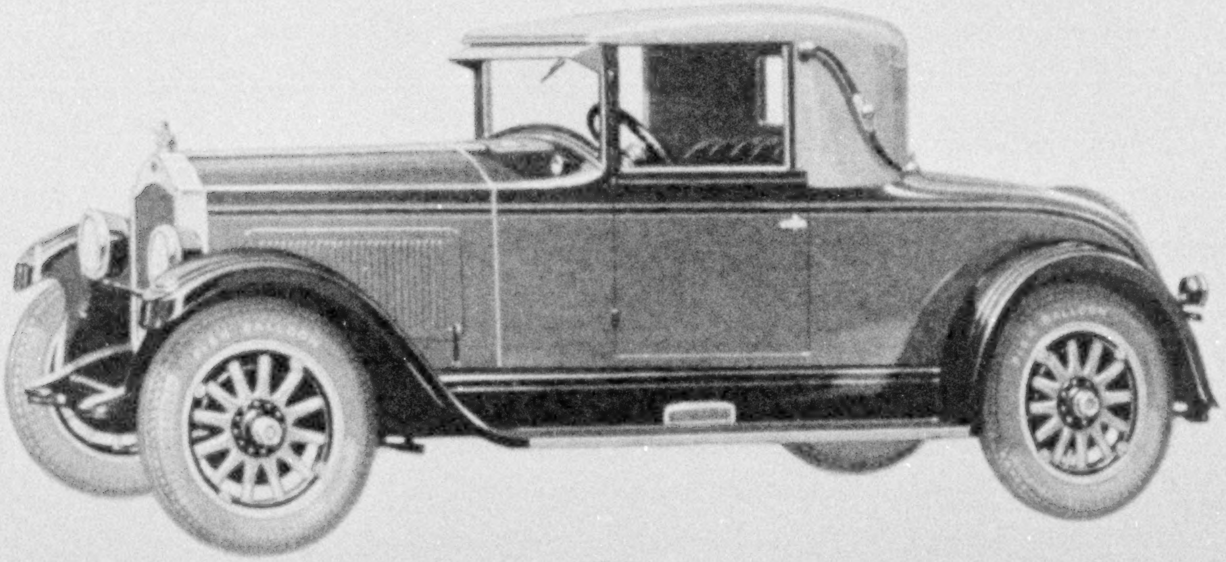
ETHYL GASOLINE

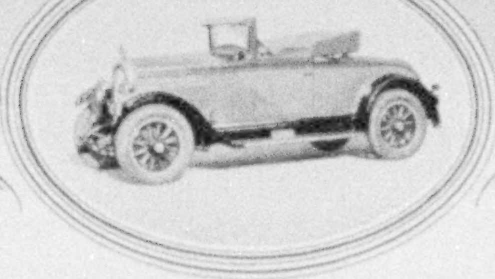
ETHYL
BRAND OF
ANTI-KNOCK
COMPOUND
ETHYL GASOLINE
CORPORATION

Knocks out that "knock"

2 *complete cars in* ONE

THE "70" WILLYS-KNIGHT *CABRIOLET* COUPE





The "70" Willys-Knight Six Cabriolet Coupe as an open car.

Folding dickie seat in rear provides room for two extra passengers.

A MOST accommodating dual-purpose car, this celebrated "70" Willys-Knight Six Cabriolet Coupe. Now, a closed car—cozy, warm, weatherproof. Then, with no trouble, it readily transforms into a dashing roadster, affording all the fresh air and freedom of the conventional type of roadster.

No other car is so richly equipped with advantages:—

The Knight Sleeve-valve Engine—The only type of engine that actually *improves* with use.

7-Bearing Crankshaft—Eliminates vibration.

Skinner Rectifier—The only device that positively prevents oil dilution and contamination.

4-Wheel Brakes—Positive, mechanical, quick-acting.

Belflex Shackles—Patented spring shackles that make the chassis lastingly quiet. No greasing or adjustment.

8 Timken Bearings in Front Axle—Twice as many as in most fine cars. Easiest steering you have ever known.

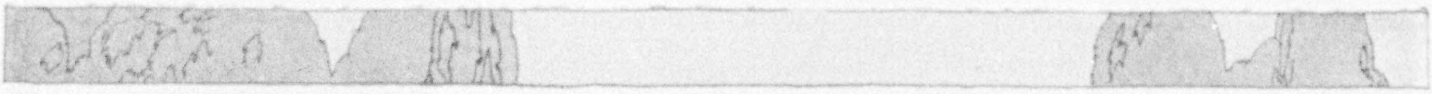
Light Control at Steering Wheel—Within easy finger reach. Convenient as a wrist-watch.

Narrow Body Pillars at Windshield—Insuring greater vision. An added safety factor. When all other cars are so equipped, accidents will be reduced to a minimum.

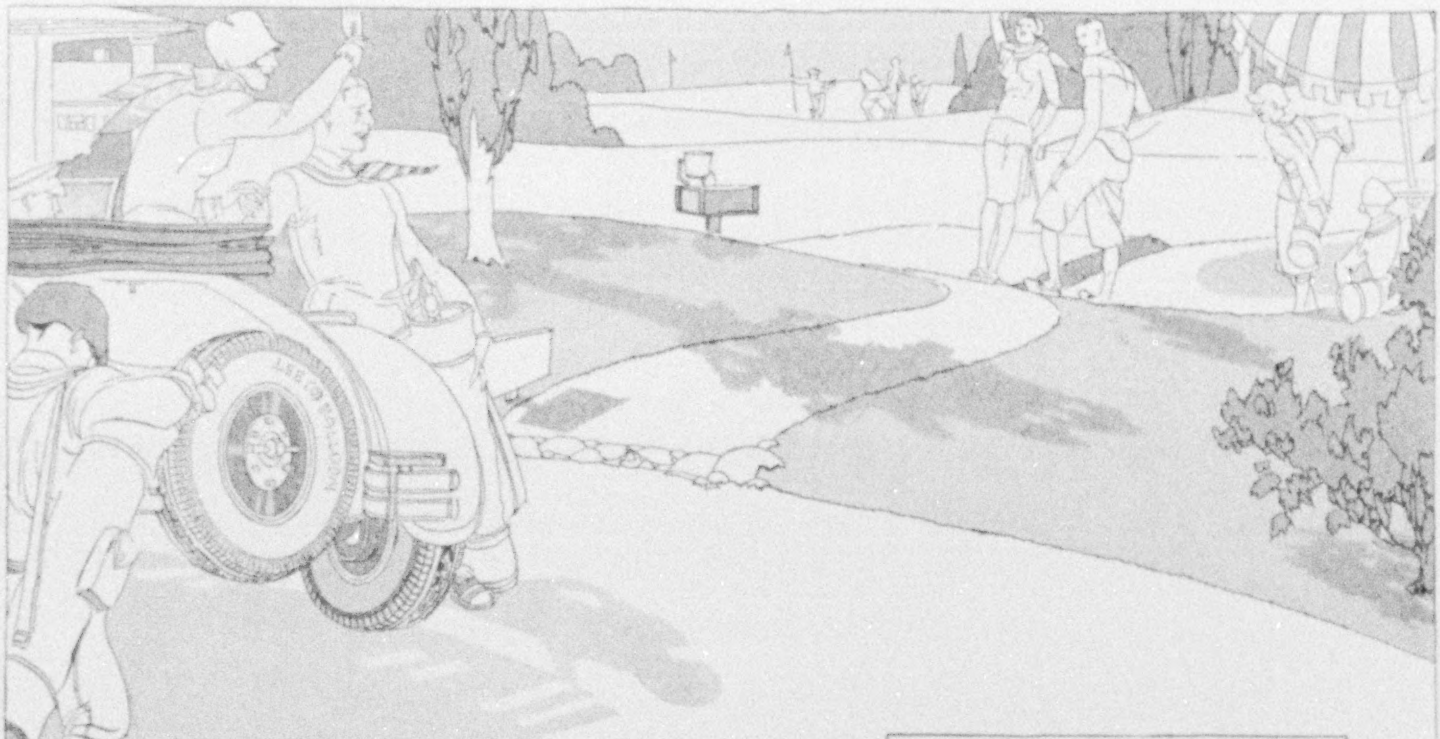
Gabriel Snubbers—Air-Cleaner—Thermostatic Temperature Control.

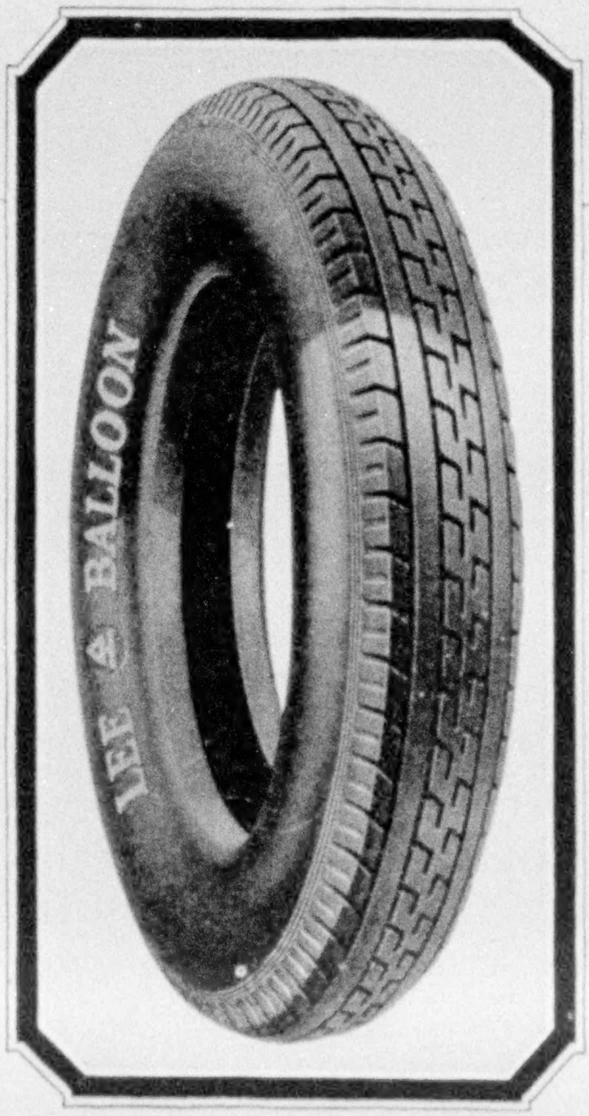
"70" Willys-Knight Six, $1295 to $1495. Willys-Knight Great Six, $1850 to $2850. Prices f.o.b. factory and specifications subject to change without notice. Willys-Overland, Inc., Toledo, O. Willys-Overland Sales Co., Ltd., Toronto, Canada.

WILLYS-KNIGHT SIX



LEE *of Conshohocken*





TIRES BY LEE *of* CONSHOHOCKEN

When LEE of Conshohocken began his own business, he was one of the most expert fabricators of rubber. His surgical rubber goods became and they remain the standard of quality all over the world.

He slowly assembled a corps of workers and they learned "rubber" from Lee. He taught them how, and when tire-making came, they knew how. Machines do what they can, but the important part is done by hand; hands trained to the Lee method.

The workers for LEE of Conshohocken are not merely "rubber-workers," shifting from one factory to another as the labor demand fluctuates. They *live here* in their own homes; they know how to make tires, one way; the Lee way.

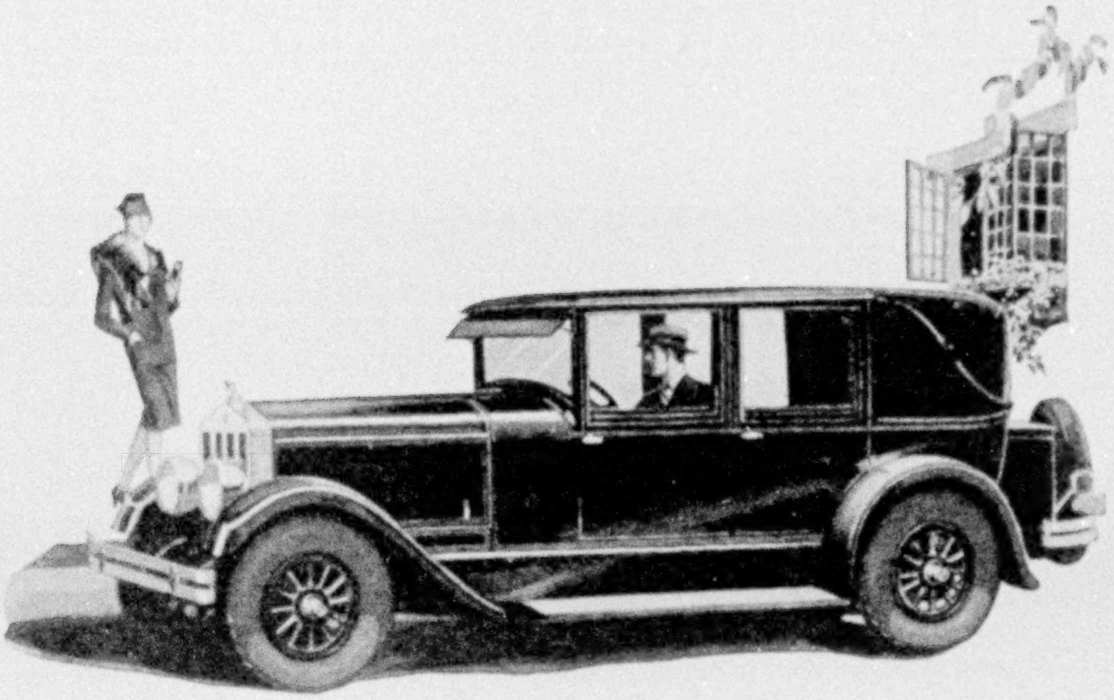
It is this trained Craftsmanship plus the most modern methods that make your tire money go the farthest—when you ride on Tires by LEE of Conshohocken.

Pneumatic tires for passenger cars, trucks, buses. Staghound tires for commercial use and the famous Lee Puncture Proof cords for unusual service.

COST NO MORE TO BUY ~ FAR LESS TO RUN

The 25th Anniversary Franklin

THE SPORT SEDAN
Town Car Privacy, Sedan Intimacy,
Touring Practicality



Winning New Thousands of Experienced Owners

THE remarkable thing about the growing popularity of the Franklin is not so much that its 1927 sales are exceeding 1926 every month. More significant is the fact that they are out-running the industry in rate of increase. Franklin owner repeat sales continue high, and deliveries to owners of other cars are moving at the greatest rate ever reached.

Such a swing in buying sentiment is wholly natural. People are giving due recognition to Franklin for the growing trend toward less weight, greater compactness and higher efficiency—principles and results in which Franklin has long led. And people are drawing conclusions from aviation's world-wide success with Franklin's basic principle of air-cooling.

Today, more than ever, Franklin performance justifies this favor. After experience elsewhere, owners find in Franklin a sharp advance in riding and driving ease, safe control and reliability —greater upkeep savings than in any other fine car—smooth and responsive power of an advanced order—and quality that is a known quantity. Drive the 25th Anniversary Franklin.

All prices are the most favorable in Franklin history. Ask about the 25th Anniversary Easy Ownership Plan.

FRANKLIN

The Pennsylvania Railroad

Announces

World-wide Service

NOW in practically every corner of the world Pennsylvania passenger service is available to travelers.

The best known and most experienced organization of travel experts in the world—Thos. Cook and Son—have become General Foreign Passenger Agents for the Pennsylvania Railroad.

In their offices throughout the world (other than North America) Thos. Cook and Son will now place at your disposal every facility of their celebrated travel service combined with all the specialized services of Pennsylvania ticket offices.

When you decide to return to the "States" after your foreign trip this far-flung organization will help you in planning every step of your journey: making reservations for trains and hotels, supplying information, preparing the way before you so that your return trip will be as pleasant as your visit.

Thos. Cook and Son cover the whole world and the whole field of travel. Their 160 offices are staffed by carefully selected men, each of whom has been specially trained for his work as interpreter, courier, guide, or travel expert.

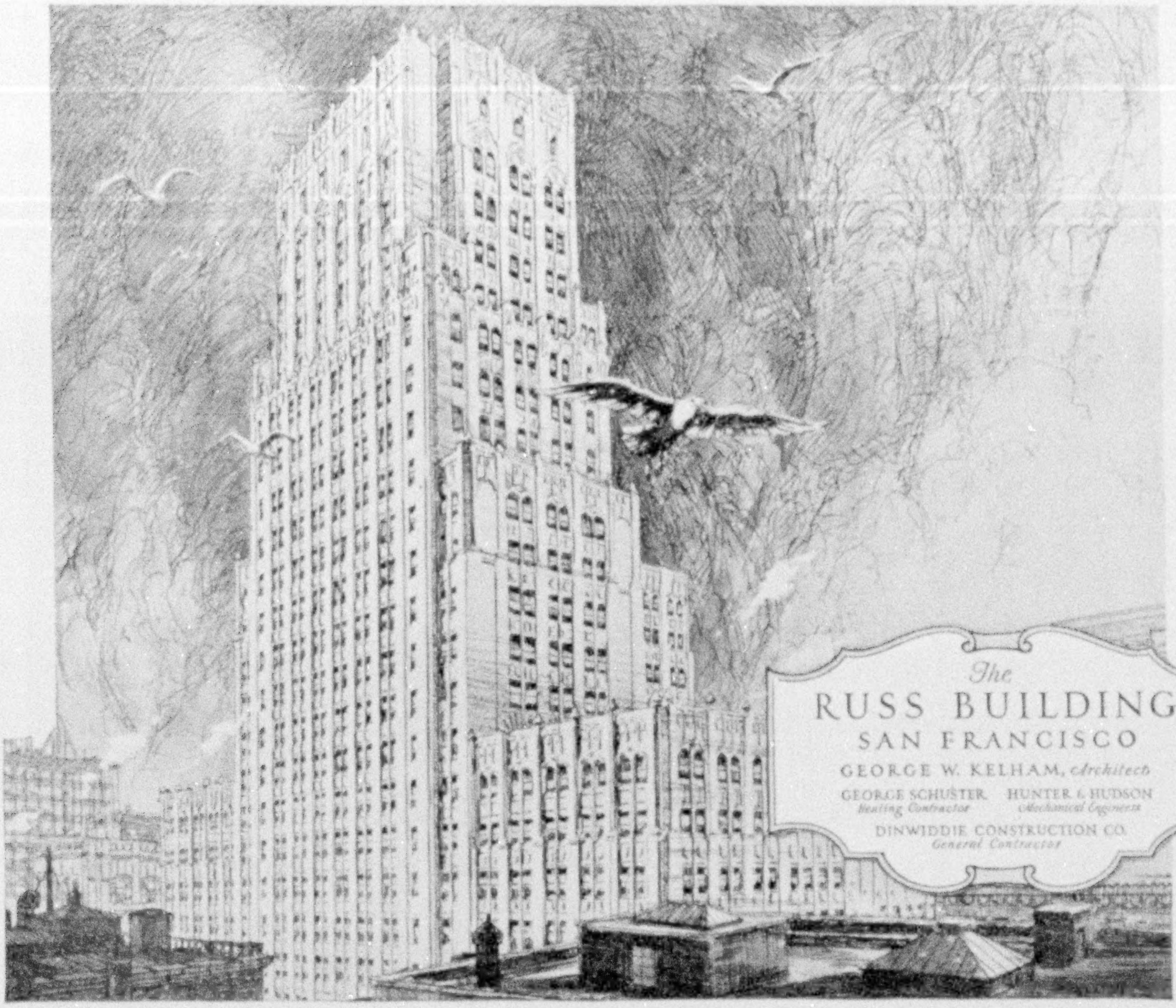
The second step in making Pennsylvania service world-wide

Last fall the Pennsylvania appointed agencies in the principal cities and ports of Europe to represent it on all questions of freight service.

And so with the completion of these plans for cooperation with Thos. Cook and Son, and the appointment of its foreign freight representatives, the Pennsylvania Railroad is able to offer American travelers and shippers the most adequate and efficient foreign service of any American railroad system.

PENNSYLVANIA RAILROAD

Carries more passengers, hauls more freight
than any other railroad in America


The
RUSS BUILDING
SAN FRANCISCO
GEORGE W. KELHAM, Architect
GEORGE SCHUSTER
Heating Contractor
HUNTER & HUDSON
Mechanical Engineers
DINWIDDIE CONSTRUCTION CO.
General Contractor

Heating eight acres of offices in the largest building on the Pacific

Another job for Walworth

In the financial center of San Francisco, half a mile back from the bay, there is now being erected the largest building on the shores of the Pacific, from Alaska to Cape Horn—the Russ Building.

From the top to the bottom of its thirty stories, eight acres of offices will be heated by an installation of Walworth valves and fittings.

The Russ Building stands as a monument to Western progress. And to many who have known Walworth only in the East, this great installation typifies the expansion of a service which, within the last few years, has become nation-wide.

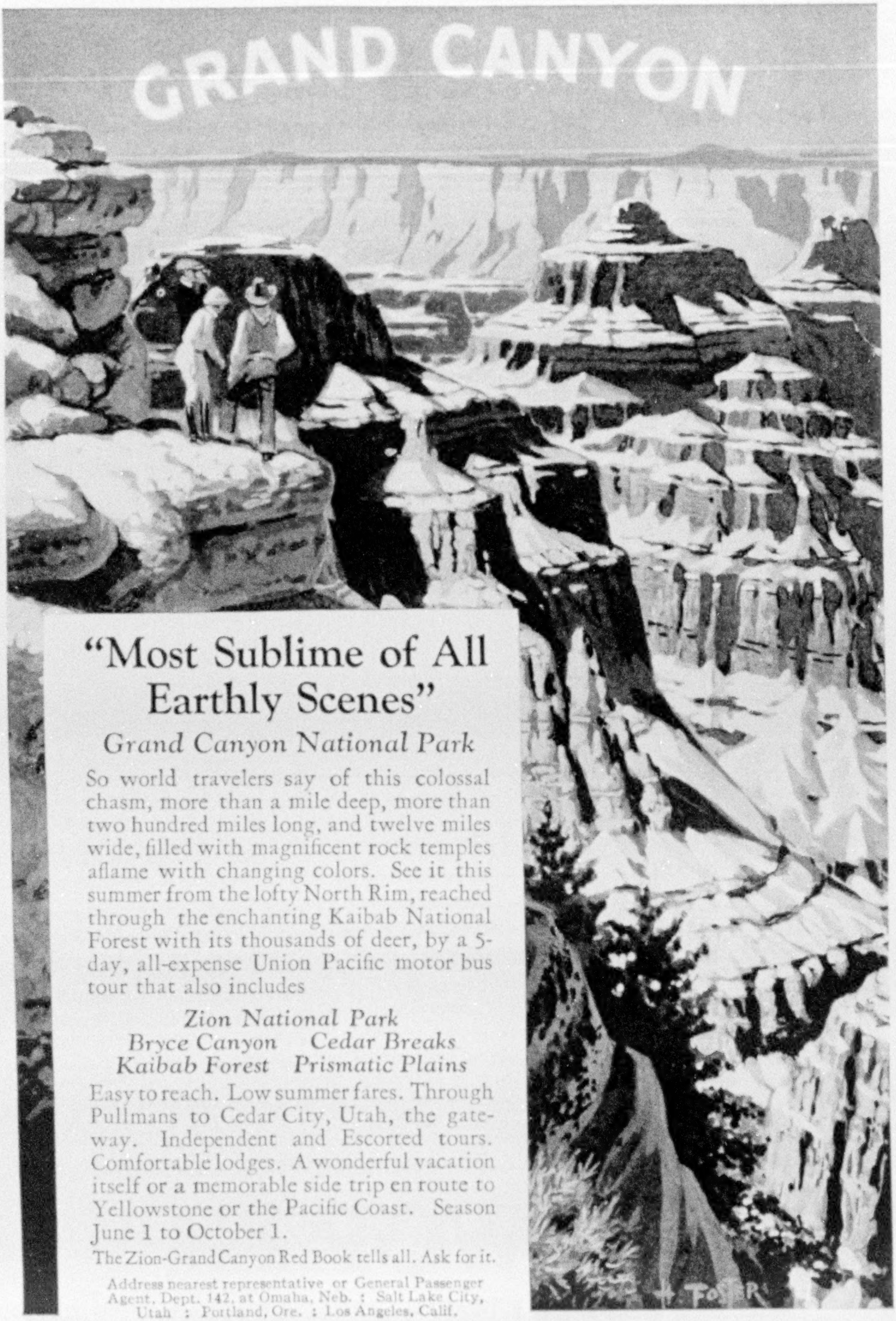
As a result of this service, Walworth valves and fittings are available everywhere for every need of plumbing and heating . . . of process and power . . . for bungalows in California, oil refineries in Texas, power plants in Quebec, or for the piping requirements of your own project, whatever it is and wherever you may be.

Specifying Walworth to your engineer, contractor, or architect is the first and one of the most important steps in assuring the safety and satisfaction of any installation for the industrial or domestic use of steam, water, gas, oil, or air

WALWORTH

VALVES, FITTINGS AND TOOLS
For STEAM, WATER, GAS, OIL AND AIR

WALWORTH CO., 51 East 42nd Street, New York - - Distributors in Principal Cities of the World



"Most Sublime of All Earthly Scenes"

Grand Canyon National Park

So world travelers say of this colossal chasm, more than a mile deep, more than two hundred miles long, and twelve miles wide, filled with magnificent rock temples aflame with changing colors. See it this summer from the lofty North Rim, reached through the enchanting Kaibab National Forest with its thousands of deer, by a 5-day, all-expense Union Pacific motor bus tour that also includes

Zion National Park
Bryce Canyon *Cedar Breaks*
Kaibab Forest *Prismatic Plains*

Easy to reach. Low summer fares. Through Pullmans to Cedar City, Utah, the gateway. Independent and Escorted tours. Comfortable lodges. A wonderful vacation itself or a memorable side trip en route to Yellowstone or the Pacific Coast. Season June 1 to October 1.

The Zion-Grand Canyon Red Book tells all. Ask for it.

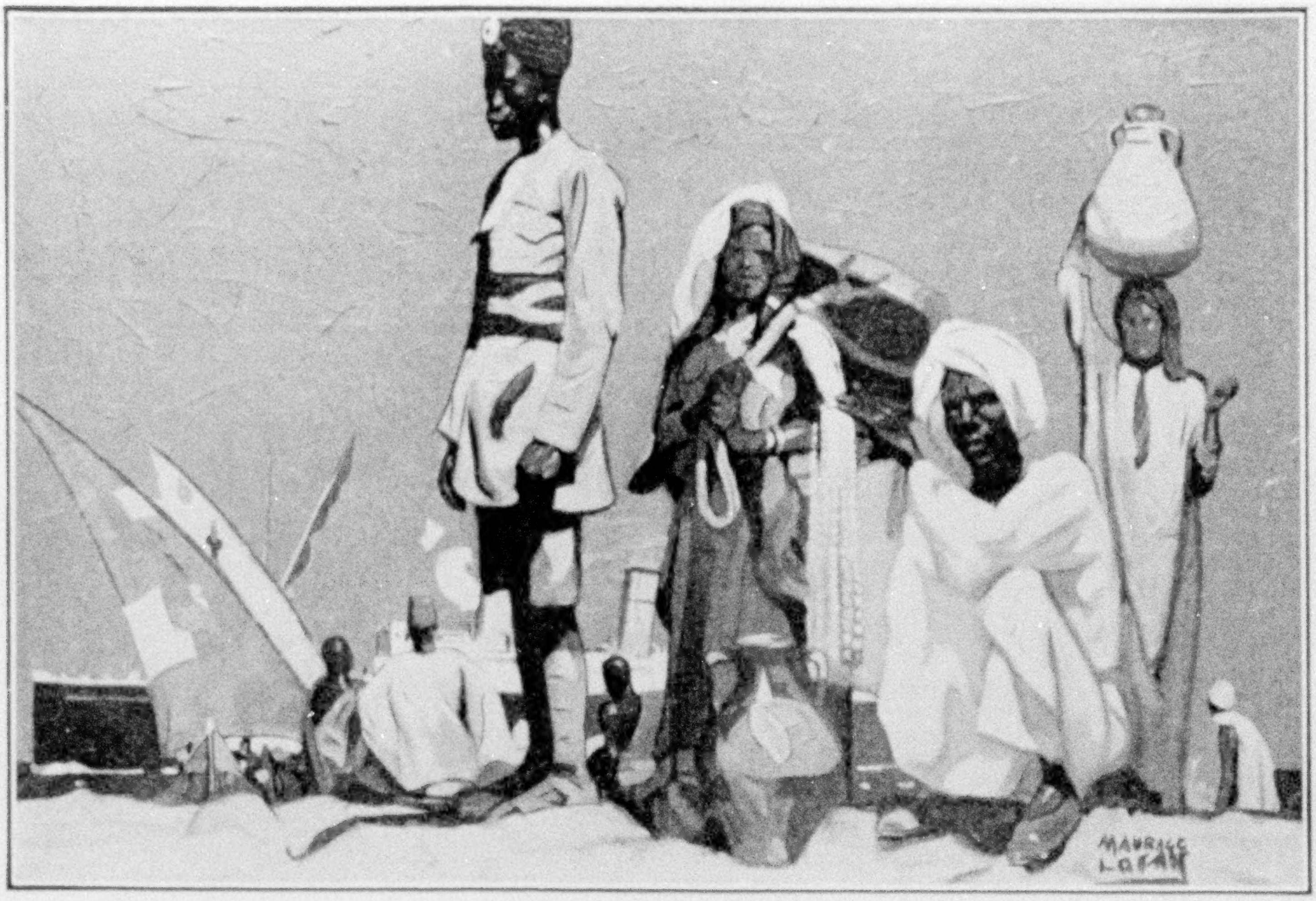
Address nearest representative or General Passenger Agent, Dept. 142, at Omaha, Neb. : Salt Lake City, Utah : Portland, Ore. : Los Angeles, Calif.

UNION PACIFIC

THE OVERLAND ROUTE

South America - - Africa Cruise

SAILING FROM NEW YORK, JANUARY 24*th*



In 104 days—*the contrasts of the world*

CANADIAN Pacific presents the Cruise of Contrasts: West Indies, South America, Africa, and the Mediterranean.

You sail from New York one January day—straight to the summer side of the globe. Jamaica and Trinidad, gems of the West Indies. Rio de Janeiro and Buenos Aires, dazzling Parisian capitals of flourishing Latin republics. Across to Capetown, "Land's End" of Africa. Up to Kimberley's diamond mines. Durban, with the color of India, the barbaric color of Zululand, and the order of England. Over the South African veldt, where primitive blacks live in kraals and herds of giraffe, zebra, antelope roam the spaces. Up the East Coast, where Hindus deal in slave bracelets, Mohammedans parade in burnouses, and Kaffirs dance in beads. Finally, into Egypt and the Mediterranean, oldest of cultures.

Five years ago, this trip was the adventurer's favorite feat. Today, it is the traveller's newest pleasure. Five years ago, it meant six months away from everything. Today, it means one hundred and four days away from nothing. In each of twenty ports, they know Canadian Pacific; they honor its guests; they give their best. In each of sixteen countries, your Canadian Pacific staff knows the way; it commands Canadian Pacific service; it carries out Canadian Pacific arrangements. Such is the power of the world's greatest travel system.

Surely this cruise should be investigated. Early reservations are advised. Fares surprisingly low. Personal service.

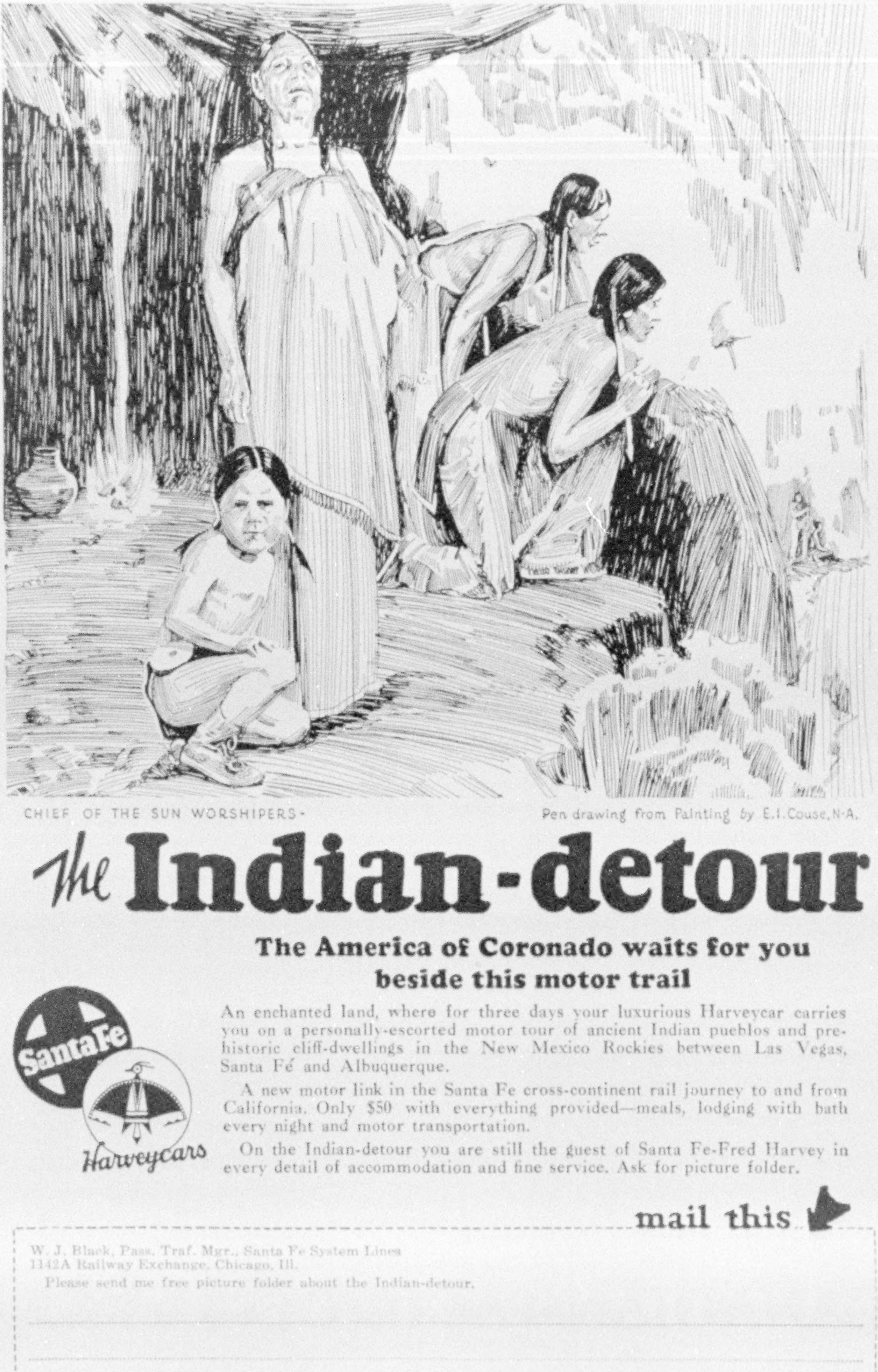
Descriptive literature and plan of ship from your local agent or any Canadian Pacific District Office:

Atlanta, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Kansas City, Los Angeles, Minneapolis, New York, Philadelphia, Pittsburgh, Portland, San Francisco, St. Louis, Seattle, Tacoma, Washington.

In Canada: Montreal, Ottawa, Vancouver, Toronto, Winnipeg.

Canadian Pacific Express Travellers Cheques Good the World Over

CANADIAN PACIFIC ·WORLD'S GREATEST TRAVEL SYSTEM·



CHIEF OF THE SUN WORSHIPERS- Pen drawing from Painting by E. I. Couse, N. A.

the Indian-detour

The America of Coronado waits for you beside this motor trail

Santa Fe

Harveycars

An enchanted land, where for three days your luxurious Harveycar carries you on a personally-escorted motor tour of ancient Indian pueblos and prehistoric cliff-dwellings in the New Mexico Rockies between Las Vegas, Santa Fé and Albuquerque.

A new motor link in the Santa Fe cross-continent rail journey to and from California. Only $50 with everything provided—meals, lodging with bath every night and motor transportation.

On the Indian-detour you are still the guest of Santa Fe-Fred Harvey in every detail of accommodation and fine service. Ask for picture folder.

mail this

W. J. Black, Pass. Traf. Mgr., Santa Fe System Lines
1142A Railway Exchange, Chicago, Ill.

Please send me free picture folder about the Indian-detour.

....

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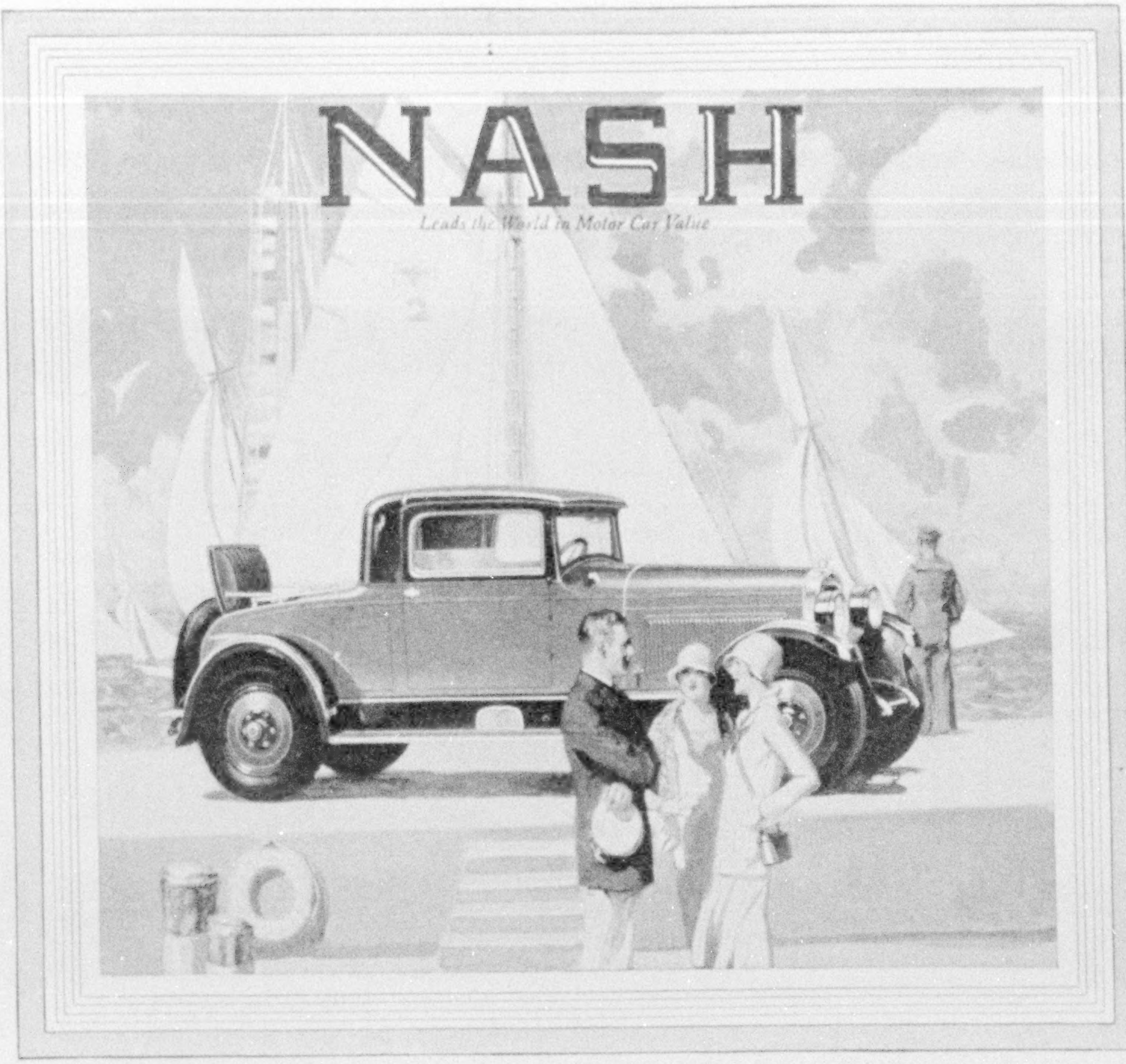
NASH
Leads the World in Motor Car Value

A Car That *Instantly* Catches the Eye

The Advanced Six Coupé with Rumble Seat

Nash has risen to new heights of body artistry in this smart Coupé with its luxurious aspect of length and lowness, its graceful French-type roof and back, and sweeping rear deck bright with nickel mountings.

Comfort, as well as beauty, is a welcome attraction of this model, for the deep, broad driving seat resembles nothing so much as a big restful davenport.

It is upholstered in fine dark green mohair, heavily tufted. The genuine walnut steering wheel matches the inlaid walnut window panels, the crown panel of walnut above the instrument board, and the walnut finished instrument board. Two further passengers are amply comfortable in the big rumble seat.

This Coupé is handsomely finished in two harmonizing shades of green — a lighter shade in the hood and body proper, including the deck, while the upper body, fenders and running gear are in darker tone.

In the rear of the car, opening on the curb side, is a large compartment under lock and key with plenty of space for luggage and packages.

The rear window looking out on to the rumble seat may be raised or lowered by simply turning an attractive silver finished window lift.

Powered with the big Nash 7-bearing motor —*the world's smoothest type*—the Coupé also offers such features as Watson Stabilators at front, 4-wheel brakes, and 5 disc wheels, and the price is surprisingly moderate.

(5496)

Another of Colorado's Beauties

The Highway to the Summit of Mt. Evans (14,259 ft.) to be completed this Summer—

The Highest Scenic Automobile Road in the World

—a one-day trip from Denver to the summit and return.

Cool Colorado has endless scenic wonders.

Denver the Gateway

to 12 National Parks and 32 National Monuments. Ask us for any information.

Low Summer Rates on All Roads

DENVER TOURIST BUREAU
514 Seventeenth St. Denver, Colorado

Annual World Cruise of the BELGENLAND

Largest, finest liner ever to circle the Globe

The perfect Cruising-home

If you want activity, there's plenty aboard. Trap-shooting, deck tennis, swimming, quoits, horse-racing, shuffleboard. If you want rest, you'll find so many quiet, sunny corners.

There are famous Continental chefs to satisfy a sea-going appetite, cheery stewards to anticipate each comfort whim—just everything to set you right and keep you fit.

And the itinerary—five times proved in scope and vivid interest.

Sailing December 14 from New York
Los Angeles Dec. 29—San Francisco Jan. 1

65 cities
16 countries
133 days

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6th Time over the RIGHT itinerary

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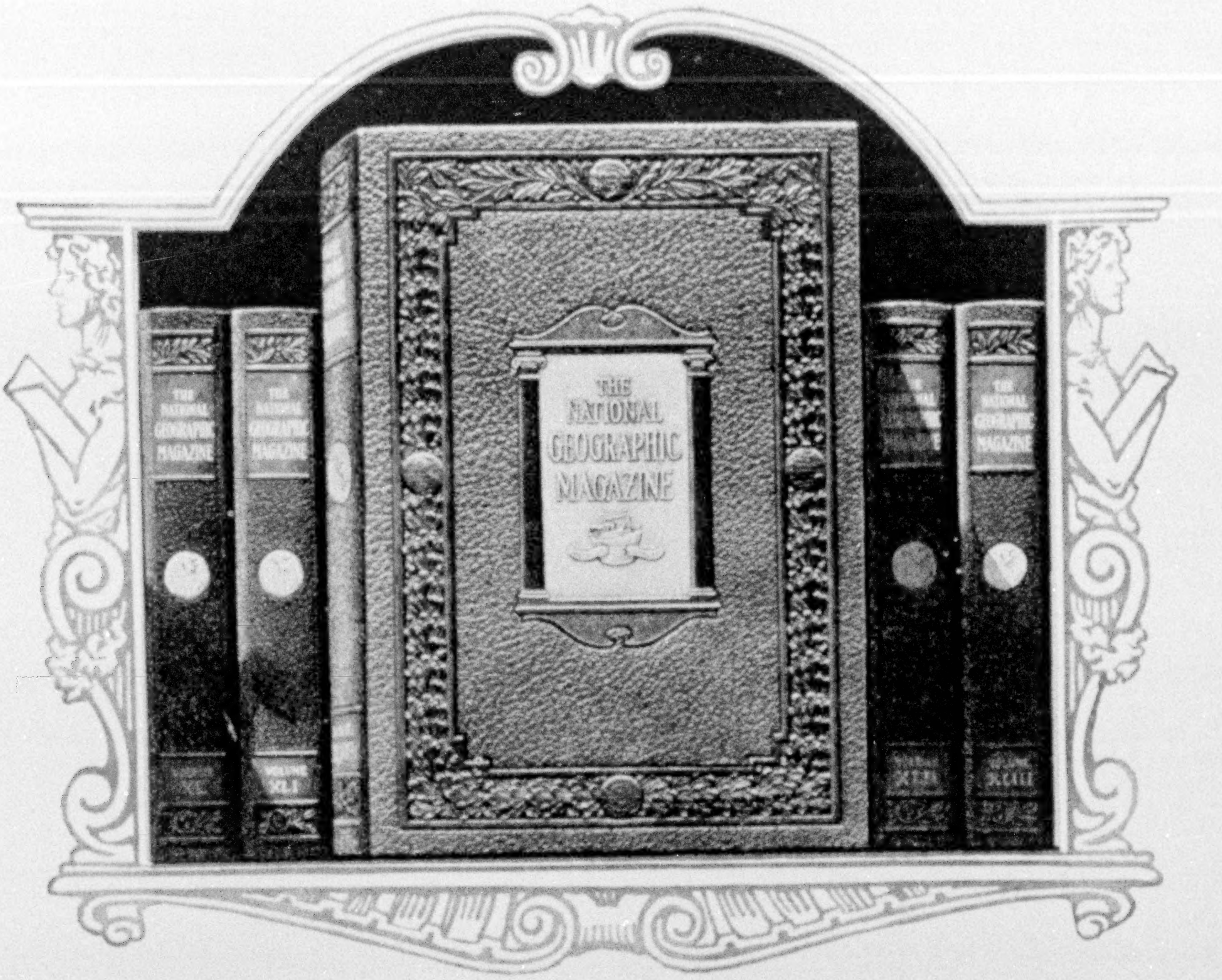

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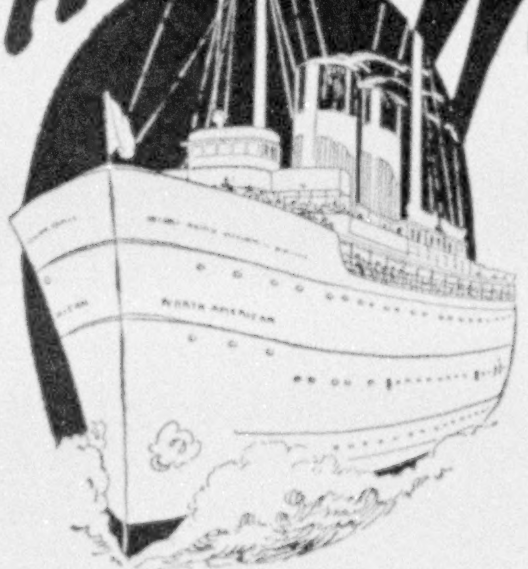

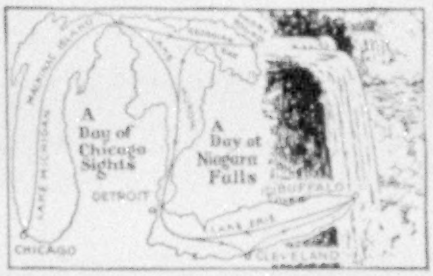

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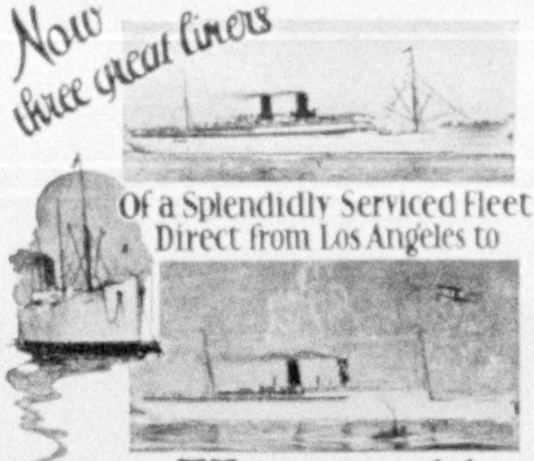

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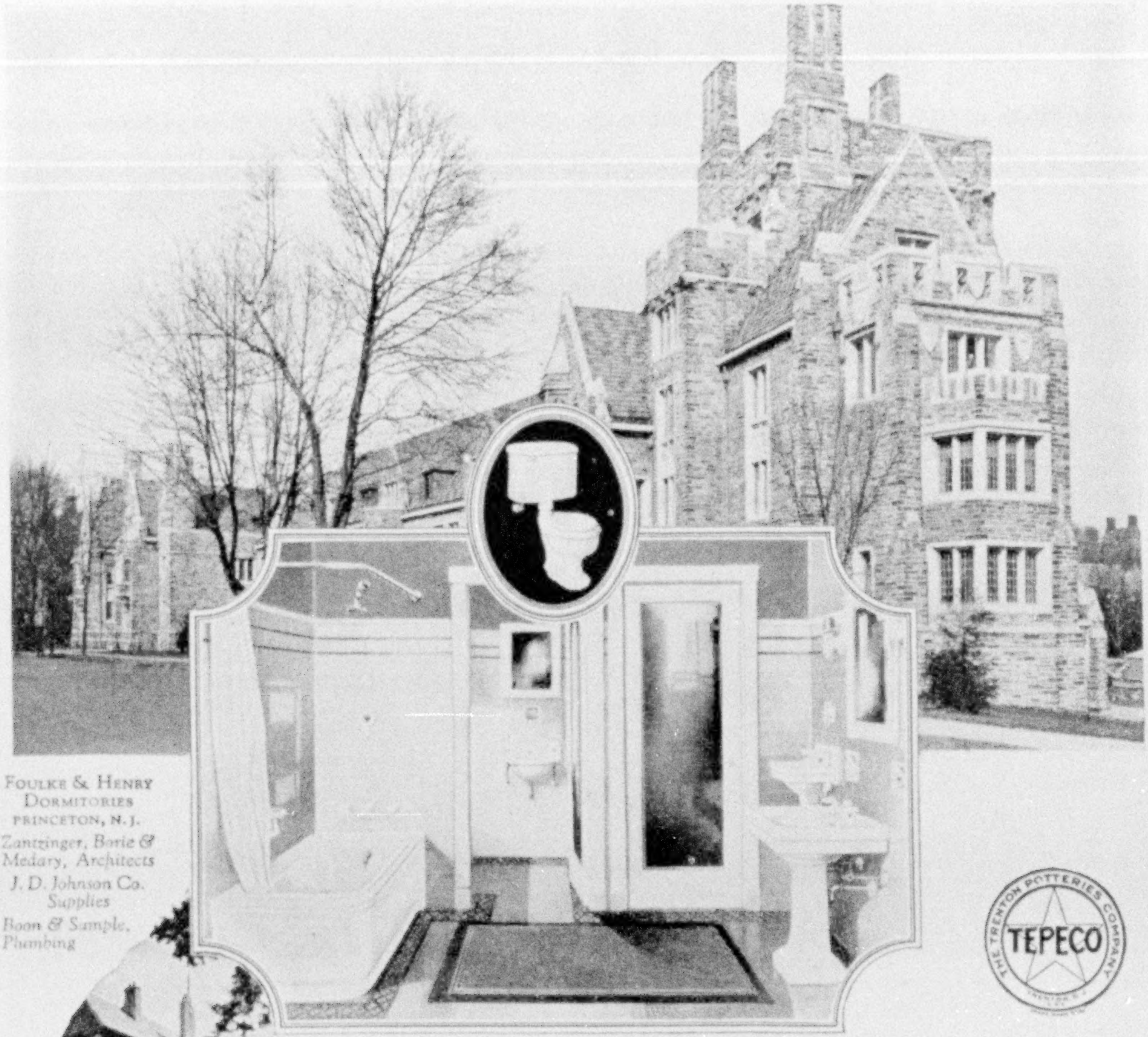

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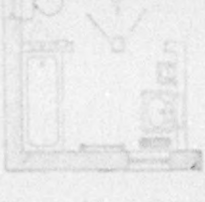

This is floor plan of the bathroom pictured above. It is but one of a number of model bathroom arrangements being shown in "Bathrooms of Character", V-4, which will be mailed for 10 cents to cover postage.

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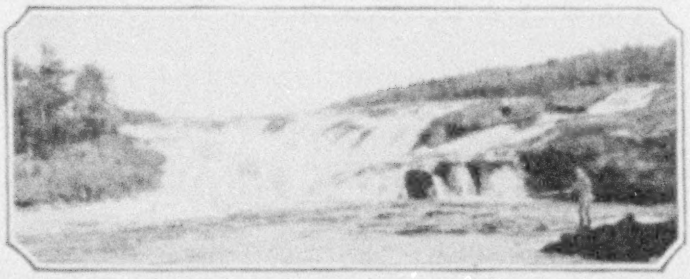

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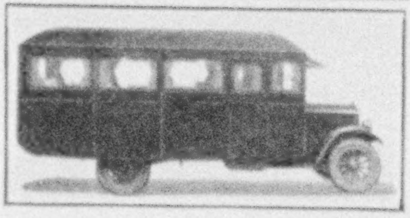

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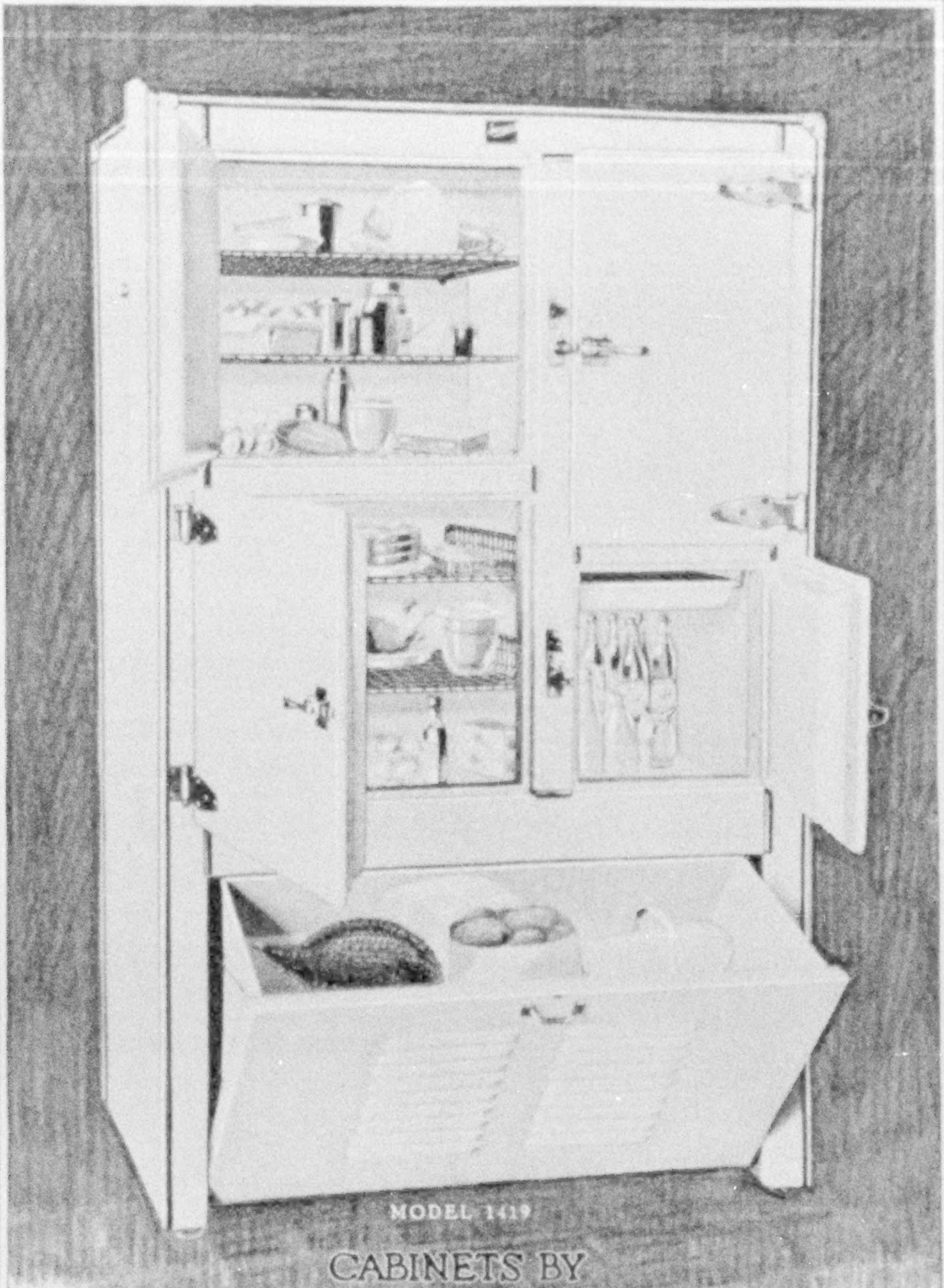

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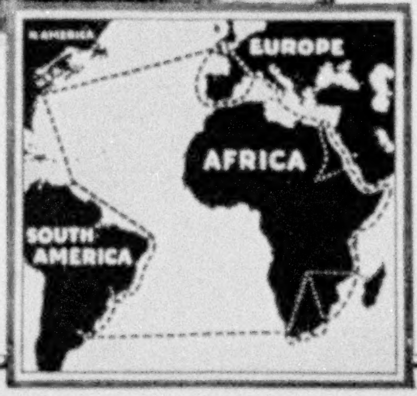

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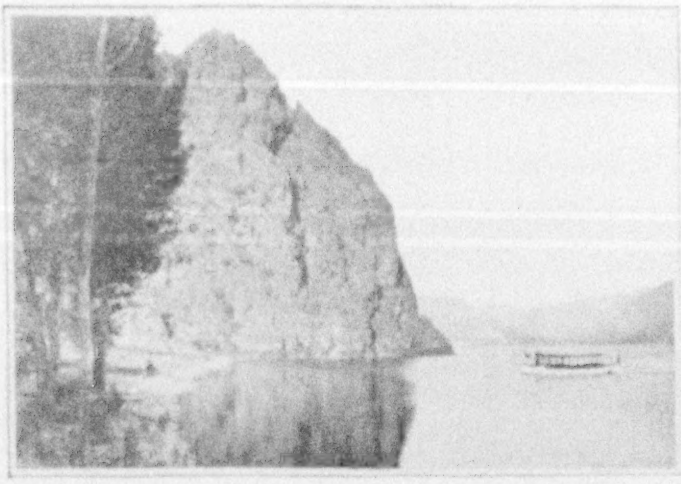

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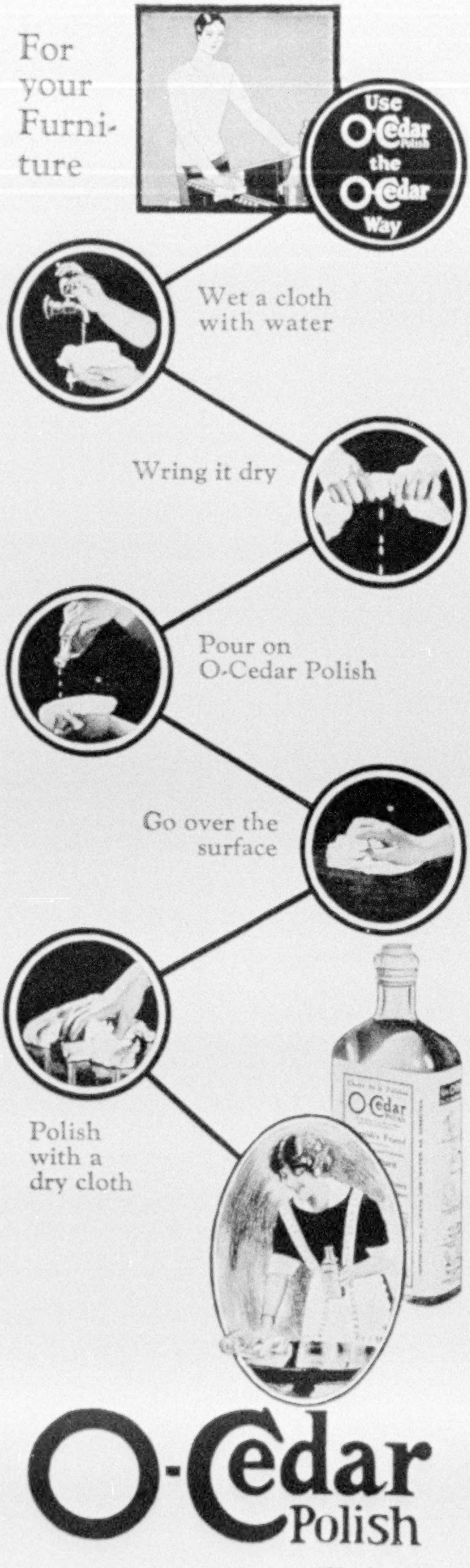

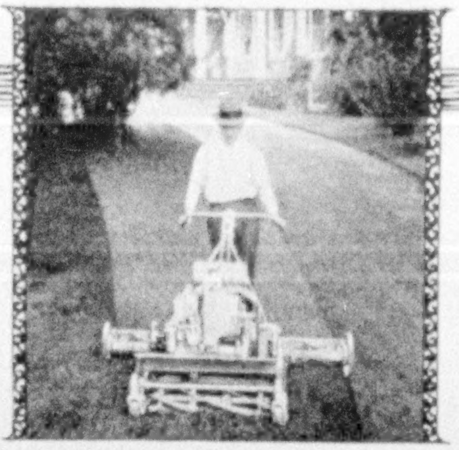

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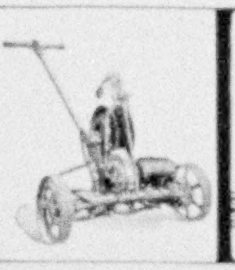

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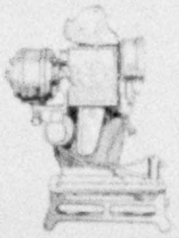

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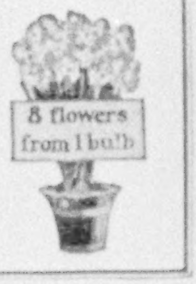

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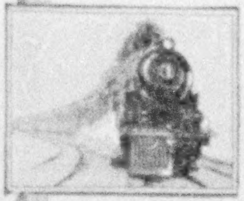

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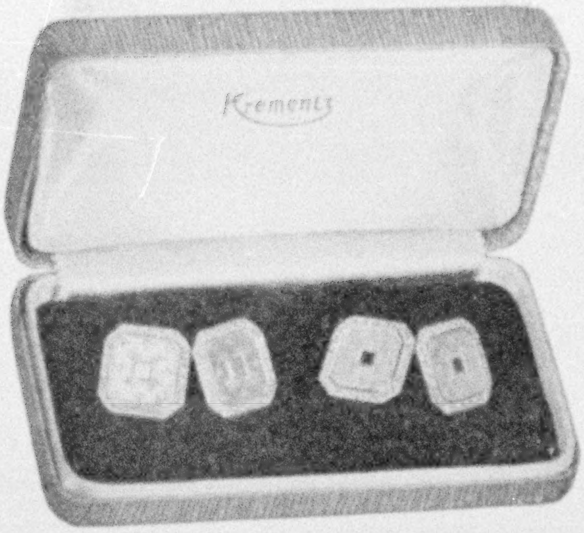

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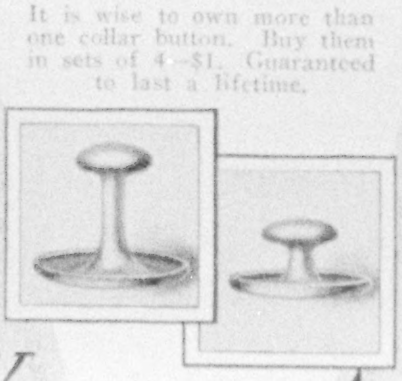

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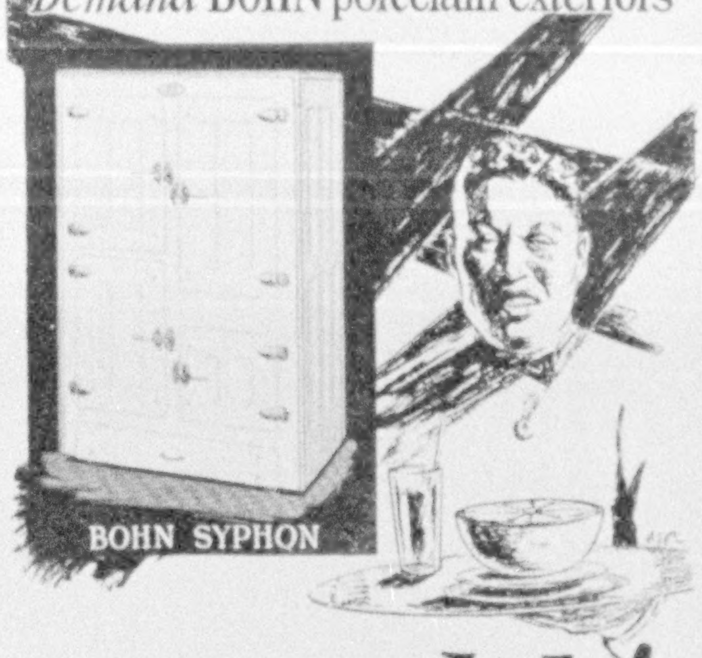

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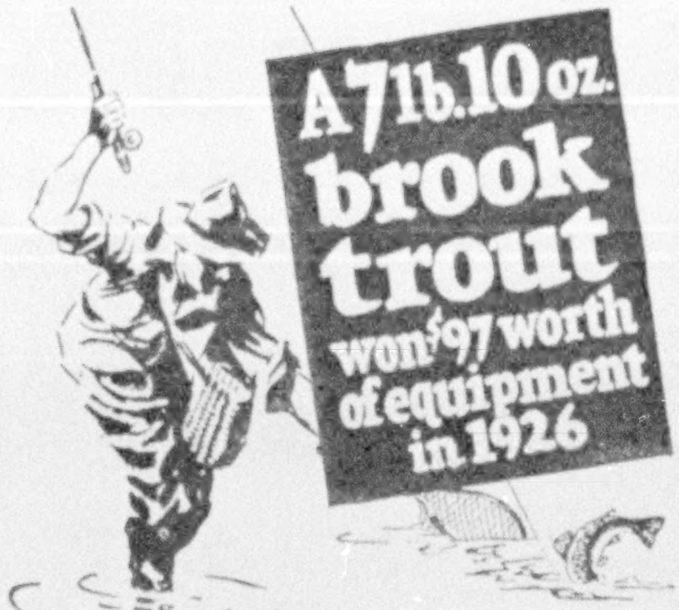
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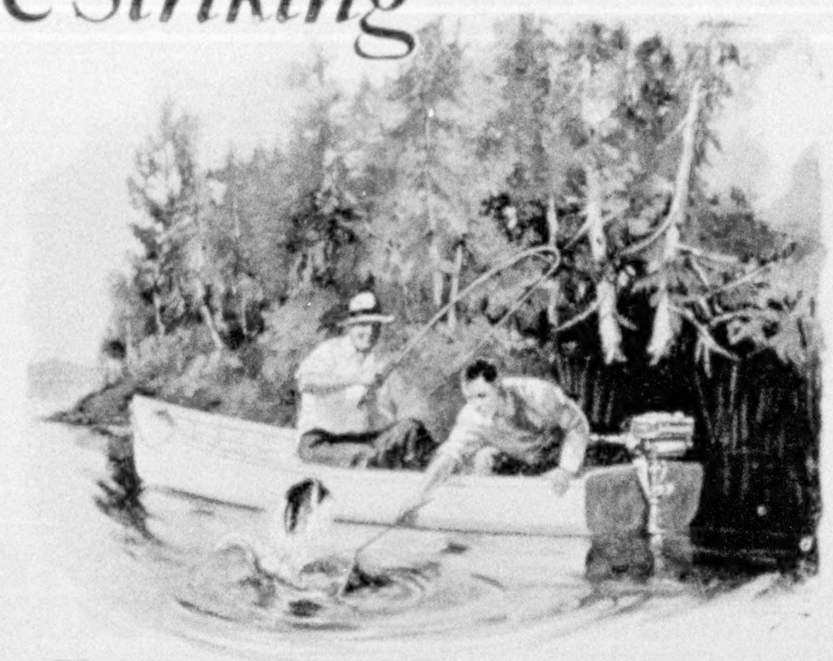
Go-where the Fish are *Striking*



HOOKED! You bet he's hooked! Game little scrapper. He's given you a battle. Your heart pounds—your blood tingles—as you play him toward the net. Man! there's a *real* thrill.

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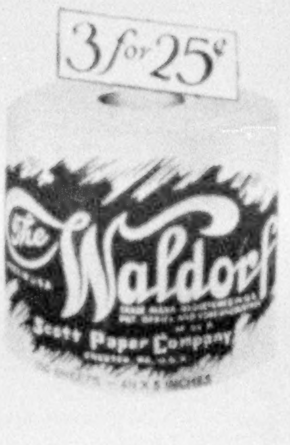

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Barbasol

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NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

The home on the hill and the plant in the valley

SHELTER is of course the primary consideration in building. But the mere fact of shelter alone is no longer adequate. There is the hazard of fire, of lightning and the general wear and tear of the elements to be overcome. And in the construction of buildings, be they homes, warehouses, barns, garages or what not, the selection of structural materials must be made with these things in mind. Economy must be considered. To secure effective service—to conform to the fundamental requirements of safe, lasting shelter, a material must be selected that will serve adequately at low initial and final costs.

The home on the hill, the plant in the valley and the farm beyond, all reflect this better adaptation of materials in their ever-widening utilization of Sheet Steel.

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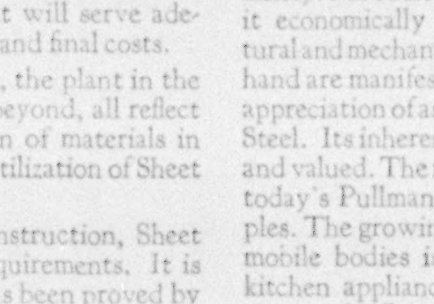

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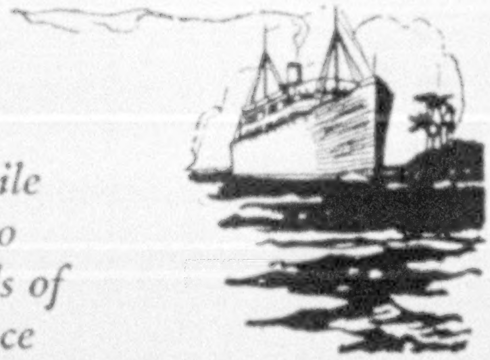

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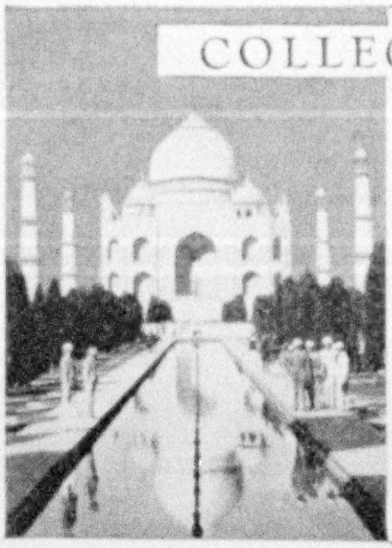

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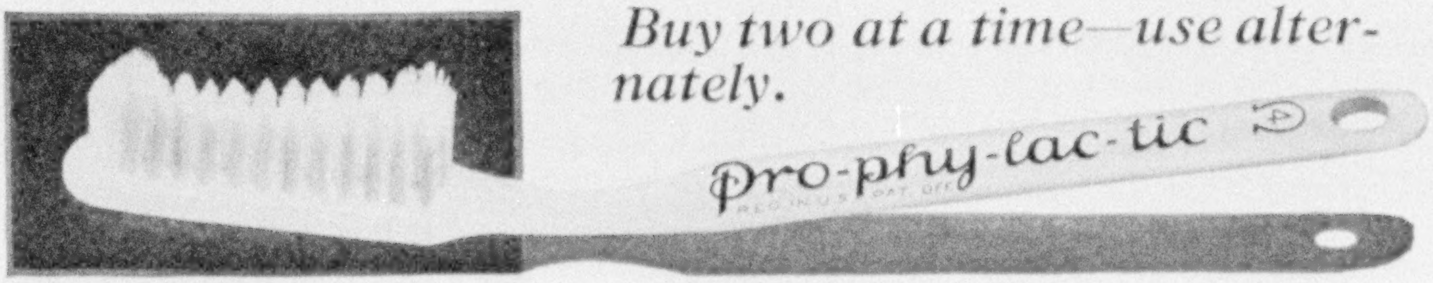

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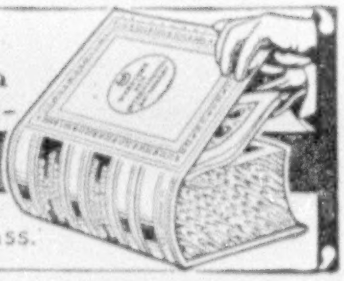

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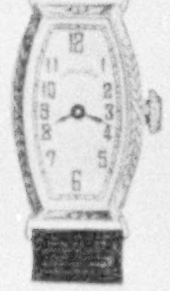

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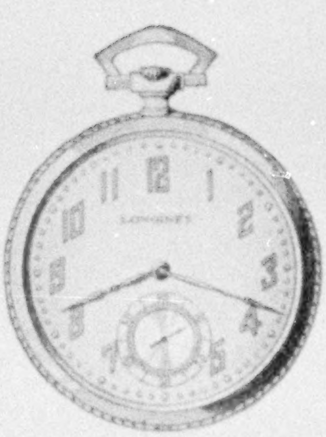

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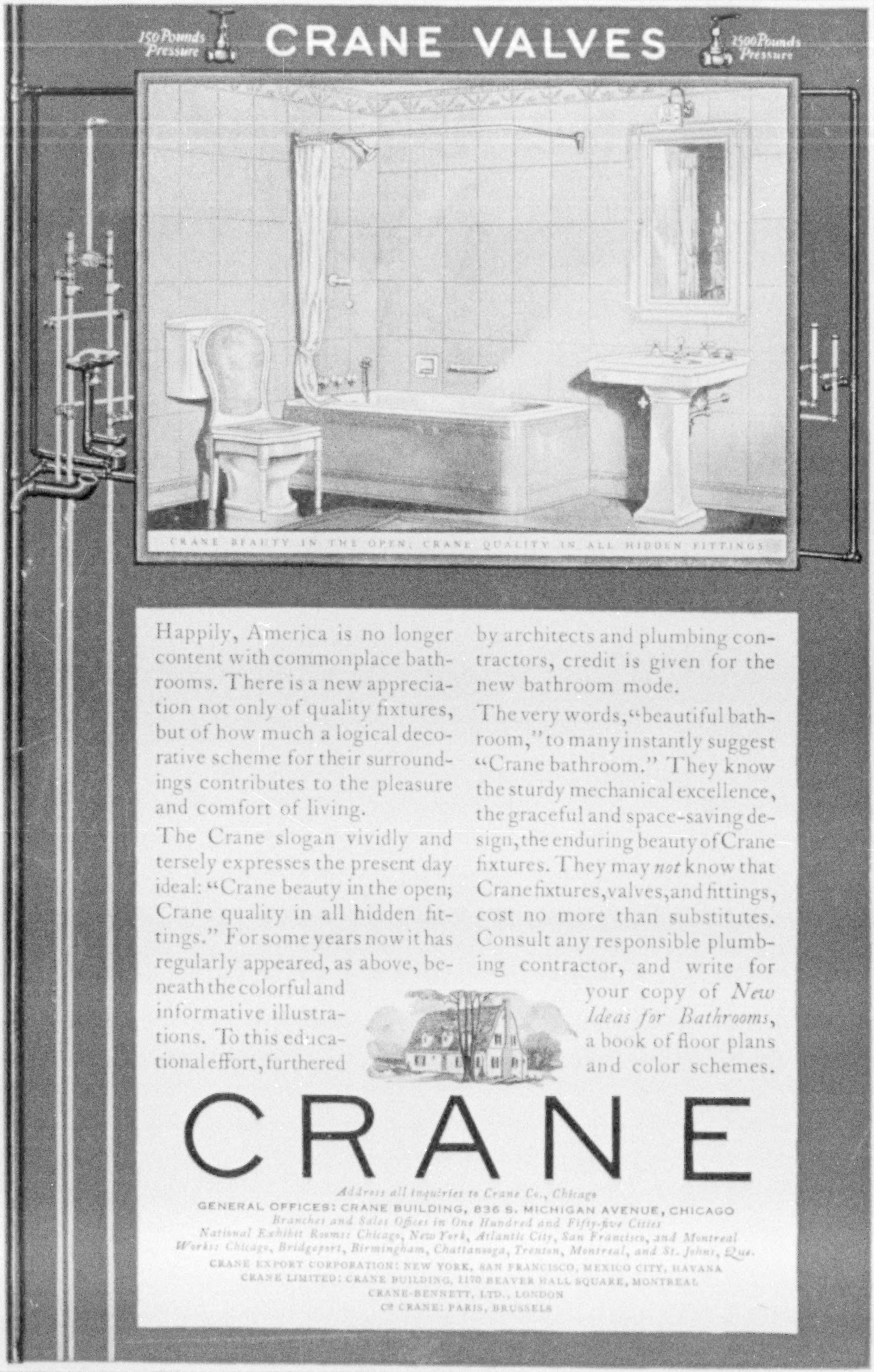
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CRANE BEAUTY IN THE OPEN, CRANE QUALITY IN ALL HIDDEN FITTINGS

Happily, America is no longer content with commonplace bathrooms. There is a new appreciation not only of quality fixtures, but of how much a logical decorative scheme for their surroundings contributes to the pleasure and comfort of living.

The Crane slogan vividly and tersely expresses the present day ideal: "Crane beauty in the open; Crane quality in all hidden fittings." For some years now it has regularly appeared, as above, beneath the colorful and informative illustrations. To this educational effort, furthered by architects and plumbing contractors, credit is given for the new bathroom mode.

The very words, "beautiful bathroom," to many instantly suggest "Crane bathroom." They know the sturdy mechanical excellence, the graceful and space-saving design, the enduring beauty of Crane fixtures. They may *not* know that Crane fixtures, valves, and fittings, cost no more than substitutes. Consult any responsible plumbing contractor, and write for your copy of *New Ideas for Bathrooms*, a book of floor plans and color schemes.

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